

Idaho Department of Health and Welfare

Division of Health

Idaho Bureau of Laboratories

Sampling *And* Submission Guide

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About the Bureau of Labs

Who are we?

The Idaho Bureau of Laboratories is the analytical arm of the Division of Health. When there is a need for laboratory work in support of public health clinics, water pollution studies, drinking water protection, food protection, among other activities of IDHW, the lab does those tests. The Lab is mandated to support state and local health departments in their duties and supply testing which supports and confirms private physicians and clinical laboratory efforts. When these entities require a test that is too uncommon or require a second opinion or confirmation in regards to a sample, the lab is ready to help. In addition, this facility provides training for laboratorians and insures the quality of environmental and medical testing laboratories through an inspection and licensing program. There are between 35 to 40 scientists, technicians, laboratory inspectors, and support staff performing these activities.

Where did we come from?

In 1904 the legislature enabled the establishment of the precursor to the present Bureau of Laboratories. The State Dairy and Pure Food Commission suggested that "A State Chemist be employed and a laboratory established". Since the Board of Health was not established until 1919, the Bureau of Labs is probably one of the oldest sections in the Department of Health and Welfare. It is also, with the possible exception of early mining assay laboratories, one of the oldest laboratory entities in the state.

Other state laboratories have "spun off" from the Bureau. The milk testing which was one of our original functions has been moved to the Department of Agriculture. In the early 1960s, we began doing limited forensic testing for the law enforcement agencies in Idaho. From then, into the 1980s this effort became a full-fledged forensic laboratory. That laboratory was moved to Department of Law Enforcement (DLE). It is now in Meridian, at DLE's central facility there.

What are we doing?

The Idaho Bureau of Laboratories performs a wide variety of chemical and microbiological analyses. See the Analytical Services Pages for a complete list.

Where are we going?

The Idaho Bureau of Laboratories is constantly looking for better ways to uncover and identify health threats. Current efforts include utilizing new and rapidly evolving methods in molecular biology. The laboratory is currently investigating methods for DNA sequence detection and typing for Norovirus. This gastrointestinal virus can cause widespread illness, as has been witnessed by the Cruise industry over the past three years. Utilizing a DNA sequencer, we can identify and classify outbreaks of *Norovirus* more specifically and accurately. In addition, past research using Polymerase Chain Reaction (PCR) methods for the detection of shigatoxins, a group of toxins in *E. coli*, the *Cholera vibrio*, and *Shigella* species that cause dysentery, were successful in helping to detect and determine food related outbreaks in pepperoni. These techniques have shown that not all dangerous *E. coli* in Idaho belongs to the infamous O157:H7 serotype. The laboratory has developed, and is in the process of developing and validating PCR techniques for the detection of bacteria and viruses that are difficult to grow, but which pose significant public health risks. Some of the PCR related tests that we currently use are: *Bordetella pertussis* (Whooping cough), *Norovirus*, *West Nile Virus*, and many zoonotic diseases that could be used as agents of bioterrorism like, anthrax and plague.

The Idaho Bureau of Laboratories

The Bureau of Laboratories consists of one centralized laboratory in the state capitol, Boise. This laboratory serves as a clinical reference laboratory and analytical lab for the seven Public Health Districts in the state, the state's Hospitals and Physicians, the Idaho Department of Environmental Quality, the Department of Homeland Security, the Federal Bureau of Investigation, the Idaho State Police and the Bureau of Hazardous Materials and the citizens of Idaho.

Bureau Chief: Richard F. Hudson, Ph.D.

2220 Old Penitentiary Road, Boise, Idaho 83712-8299

Phone: 208-334-2235 FAX: 208-334-4067

The Idaho Bureau of Laboratories is composed of five sections:

Laboratory Administration Section

Business Manager: Tammy Hogg (208) 334-2235 ext. 262

In addition to administrative services, we provide supplies, shipping and receiving, and budget support to all lab sections.

Microbiology Section

Program Manager: Colleen Greenwalt (208) 334-2235 ext. 228

The Microbiology section serves as a diagnostic and reference laboratory for public health in Idaho; performing identification and/or confirmation of agents of bacterial, viral, parasitic, and fungal communicable diseases, tests foods for bacterial agents of food poisoning and adulterants, and participates in the investigation of disease outbreaks with state and district epidemiologists.

Chemistry Section

Program Manager: Wally Baker (208) 334-2235 ext. 233

The Chemistry section is responsible for analysis of organic and inorganic chemicals, and residues found in water, soils, food products, and hazardous materials. They work closely with the Idaho Department of Environmental Quality, the seven public health districts and the Bureau of Hazardous Materials.

Laboratory Improvement Section

Program Manager: David Eisentrager

(208) 334-2235 ext. 245

Laboratory Improvement is the section responsible for registering and certifying all clinical laboratories performing laboratory testing in Idaho. They enforce the CLIA regulations by inspection of qualifying labs every two years. X-ray inspections and educational efforts also are included in the responsibilities of this section.

Biological and Chemical Threats

Biological Terrorism Coordinator

Walt DeLong

(208) 334-2235 ext.252

Chemical Threat Coordinator

Ian Elder

(208) 334-2235 ext.269

Analytical Methods in General Microbiology, Virology and Serology

ALPHABETICAL BY AGENT

ACID FAST BACILLI (AFB)

SEE: [MYCOBACTERIUM SPP.](#)

ADENOVIRUS, RESPIRATORY DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS:	None
CPT CODE:	87252 culture, 87253 DFA
SPECIMEN:	Nasopharyngeal or throat swab in viral transport medium Nasal wash (>1 ml) Bronchoalveolar lavage, pleural fluid, tracheal aspirate (>1 ml) Ocular swab in viral transport medium
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	1 day DFA, culture 14 days for negative

ADENOVIRUS, ENTERIC DETECTION IN CLINICAL SAMPLES

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS:	None
CPT CODE:	
SPECIMEN:	1 g stool or rectal swabs collected in containers that do not contain preservatives. Rectal swabs must contain 30-40 mg of raw stool.
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available
COMMENTS:	Detects enteric adenovirus serotypes 40 and 41

AEROMONAS SPP. DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE:	87046
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING:	Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND:	Within 4-6 working days of specimen receipt

AEROMONAS SPP. IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS:	None
CPT CODE:	87077
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature.
TURNAROUND:	Not available

AFRICAN TRYPANOSOMIASIS

SEE: [TRYPANOSOMA BRUCEI SPP.](#)

AMEBIASISSEE: [ENTAMOEBIA HISTOLYTICA](#)

AMERICAN TRYPANOSOMIASISSEE: [TRYPANOSOMA CRUZI](#)

ANCYLOSTOMA SPP. (CUTANEOUS LARVA MIGRANS)**ANTIBODY DETECTION**SEE: [PARASITE SEROLOGY](#)

ANTHRAXSEE: [BACILLUS ANTHRACIS](#)

ANTIMICROBIAL SUSCEPTIBILITY TESTING**METHODOLOGY: E-TEST OR BROTH MICRODILUTION METHODS.**

RESTRICTIONS:	Susceptibility testing is done for surveillance purposes on reportable disease agents. Check individual agents, or call the laboratory at 208-334-2235 ext 257 for special circumstances.
CPT CODE:	87181 (E-test), 87186 (Microdilution)
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature.
TURNAROUND:	2-3 days
COMMENTS:	Refer suspected vancomycin intermediate or resistant <i>Staphylococcus aureus</i> (VISA, VRSA) for confirmatory testing.

ARBOVIRUS**PCR PANEL****METHODOLOGY: RT-PCR**

Tests Included in Panel:	West Nile Virus (WNV), Saint Louis Encephalitis Virus, Western Equine Encephalitis Virus
RESTRICTIONS:	Contact your local health department, or Fish and Game office before requesting this test.
CPT CODE:	N/A
SPECIMEN:	Mosquito Pools Birds, corvids and raptors only (WNV only) - oral swabs from corvids, tissue from raptors submitted through Wildlife laboratory.
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available

ARBOVIRUS**IgM AND IgG ANTIBODY DETECTION****METHODOLOGY: ENZYME IMMUNOASSAY WITH RELFLEX TO MIA AND PRNT FOR CONFIRMATION**

Tests Included in Panel:	West Nile Virus (WNV) and Saint Louis Encephalitis Antibody WNV serology tests may be requested separately from the rest of the panel. See entry for West Nile Virus Antibody Detection .
RESTRICTIONS:	None
CPT CODE:	86790 (WNV), 86653 (SLE)
SPECIMEN:	Serum, preferred (1 ml) CSF, only IgM performed (1 ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	1-3 days

BABESIA SPP.**DETECTION, IDENTIFICATION, OR CONFIRMATION BY MICROSCOPY**SEE: [PARASITE EXAMINATION, BLOOD](#); [PARASITE IDENTIFICATION, BLOOD](#)

BACILLUS ANTHRACIS
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix A](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2-3 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BACILLUS ANTHRACIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1-2 days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BACILLUS ANTHRACIS
ISOLATION FROM ENVIRONMENTAL SAMPLES

RESTRICTIONS: Contact local law enforcement or State Communications (208)846-7610 or (800)632-8000 before requesting this test.
TURNAROUND: Not available

BACILLUS CEREUS
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship stool at room temperature, food at refrigeration temperature.
TURNAROUND: Within 4 working days of specimen receipt

BACILLUS CEREUS
DETECTION OF DIARRHEAL TYPE ENTEROTOXIN IN FOOD

METHODOLOGY: REVERSED PASSIVE LATEX AGGLUTINATION

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:
SPECIMEN: Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 working day of specimen receipt

BACILLUS CEREUS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: There is no restriction on confirmation/identification of referred isolate. Toxin testing is performed only for investigation of foodborne illness. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 5 working days of specimen receipt

BACTERIA, AEROBIC IDENTIFICATION

METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE, SEQUENCING OF 16S RIBOSOMAL RNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

BACTERIA, ANAEROBIC IDENTIFICATION

SEE ALSO: [CLOSTRIDIUM BOTULINUM](#), [CLOSTRIDIUM PERFRINGENS](#)

METHODOLOGY: BIOCHEMICAL TESTING, TYPING OR GROUPING IF APPROPRIATE, SEQUENCING OF 16S RIBOSOMAL RNA IF INDICATED

RESTRICTIONS: None
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in anaerobic transport environment.
TURNAROUND: Not available

BACTERIAL MENINGITIS

SEE: [MENINGITIS, BACTERIAL](#); [ALSO INDIVIDUAL AGENTS](#)

BETA HEMOLYTIC STREPTOCOCCUS

SEE: [STREPTOCOCCUS](#)

BORDETELLA PERTUSSIS, DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

CPT CODE: 87081
SPECIMEN: Nasopharyngeal swab in Regan-Lowe transport media or nasopharyngeal aspirate; calcium alginate or Dacron swabs are recommended. Collection kits available from laboratory. Call (208) 334-2235 ext 226.
SHIPPING: Ship at ambient temperature if ≤3 days from collection or refrigeration temperature if > 3 days from collection.
TURNAROUND: Negative reports issued after 10 days of incubation
COMMENTS: Cotton is toxic to B. pertussis
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact your local Health District before requesting this test.
CPT CODE: 87798
SPECIMEN: Collection kits available from laboratory. Call (208) 334-2235 ext 226.
Nasopharyngeal swab or nasopharyngeal aspirate in a sterile 15-mL conical tube. Dacron swabs are preferred. Do not use calcium alginate swabs.
Nasal wash (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 48 hours from receipt of specimen.

COMMENTS: The performance characteristics of this assay have been verified in accordance with FDA requirements.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: MICROSCOPIC MORPHOLOGY, IMMUNOFLUORESCENCE, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077, 87265
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Fluorescent Antibody results available within 1 working day of specimen receipt.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BORDETELLA PERTUSSIS
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

BOTULISM/BOTULINUM TOXIN
SEE: [CLOSTRIDIUM BOTULINUM](#)

BRUCELLA SPP
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before sending isolate.
CPT CODE: 87081
SPECIMEN: See [Appendix B](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative results available after 7-21 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BRUCELLA SPP
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 week of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: *B. abortus*, *melitensis*, and *suis* have been designated as Select Agents (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BRUCELLA SPP.
ANTIBODY DETECTION

RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87077
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Sent to CDC.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

BUBONIC PLAGUE

SEE: [YERSINIA PESTIS](#)

BURKHOLDERIA MALLEI

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208)334-2235 ext 252 or 257 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix C](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4-7 days

BURKHOLDERIA MALLEI

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: 4 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

BURKHOLDERIA PSEUDOMALLEI

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix C](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4-7 days

BURKHOLDERIA PSEUDOMALLEI

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: 4 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CALICIVIRUS

SEE: [NOROVIRUS](#)

CAMPYLOBACTER SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days. Positive results are phoned to submitter as soon as available
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, DNA PROBE

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in microaerophilic transport environment.
TURNAROUND: Identification from pure culture available in 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CAMPYLOBACTER SPP.
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

CHAGAS DISEASE
SEE: [TRYPANOSOMA CRUZI](#)

CHANCHROID
SEE: [HAEMOPHILUS DUCREYI](#)

CHANCRE
SEE: [TREPONEMA PALLIDUM](#)

CHICKEN POX
SEE: [VARICELLA ZOSTER VIRUS](#)

CHLAMYDIA TRACHOMATIS
NUCLEIC ACID DETECTION

METHODOLOGY: NUCLEIC ACID AMPLIFICATION

RESTRICTIONS: None
CPT CODE: 87801
SPECIMEN: Endocervical / vaginal / male urethral swab, urine (collected with Gen-Probe specific collection kits only)
SHIPPING: Ship at room temperature.
TURNAROUND: Daily
COMMENTS: This method is not recommended for medico legal cases and is not acceptable for throat or rectal swabs.
Only culture procedures are recommended for these situations.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CHOLERA
SEE: [VIBRIO SPP.](#)

CLOSTRIDIUM BOTULINUM
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87075 (Clinical)

SPECIMEN: See [Appendix D](#)

SHIPPING: See [Appendix D](#)

COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing

TURNAROUND: Within 14 days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

CLOSTRIDIUM BOTULINUM
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87076

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing

TURNAROUND: 4 hours to 14 days from specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

***CLOSTRIDIUM BOTULINUM* TOXIN**
DETECTION IN CLINICAL AND ENVIRONMENTAL SAMPLES AND FOOD

METHODOLOGY: TOXIN NEUTRALIZATION ASSAY

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE:

SPECIMEN: See [Appendix D](#)

SHIPPING: See [Appendix D](#)

COMMENTS: Sent to Washington State Dept of Health Laboratory for toxin testing

TURNAROUND: Within 4-72 hours of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CLOSTRIDIUM PERFRINGENS
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87075 (Stool)

SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.

SHIPPING: Ship stool at room temperature, food at refrigeration temperature.

TURNAROUND: Within 5 working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CLOSTRIDIUM PERFRINGENS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: Toxin testing is done for investigation of foodborne illness only. Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in anaerobic transport environment.
TURNAROUND: Within 5 working days of specimen receipt

CLOSTRIDIUM TETANI
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, TOXIN TESTING

RESTRICTIONS: None
CPT CODE: 87076
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature in anaerobic transport environment.
TURNAROUND: Within 2 weeks of specimen receipt
COMMENTS: If required, toxin testing is performed at CDC
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CMV
SEE: [CYTOMEGALOVIRUS](#)

CORYNEBACTERIUM DIPHTHERIAE
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 257 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87081
SPECIMEN: **Culturette** of nasopharyngeal swab, throat swab, membrane sample; or inoculate Loeffler's slant, leave swab on slant. Deliver to laboratory immediately or incubate at 37C and deliver within 18 hours of inoculation.
SHIPPING: Ship at room temperature.
TURNAROUND: Negative results available after 48 hours of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CORYNEBACTERIUM DIPHTHERIAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING; TOXIN TESTING

RESTRICTIONS: Contact laboratory at (208)334-2235 ext 257 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: *C. diphtheriae* ruled out within 1 working day of specimen receipt
COMMENTS: Toxin testing performed by CDC.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

COXIELLA BURNETII
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: PCR or Time Resolved Fluorescence Assay (TRF)
RESTRICTIONS: Contact laboratory at (208)334-2235 and/or Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87798
SPECIMEN: Tissue or bone marrow (100 mg)
Whole EDTA blood or serum (0.5 ml)
Nasopharyngeal or throat swab, dry or in transport medium
Sputum, bronchial/tracheal washings (0.5 ml)
Lesion exudates
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2 days
COMMENTS: This test is for research use only.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)
Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

COXSACKIE VIRUS

SEE: [ENTEROVIRUS](#)

CRYPTOSPORIDIUM SPP. (C. PARVUM, C. HOMINIS) **DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: MICROSCOPIC EXAMINATION, AND DIRECT IMMUNOFLOUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87015, 87272
SPECIMEN: Stool preserved in both 10% formalin , SAF, or ECOFIX - fill to line (kits are available from IBL)
Sputum preserved in 10% formalin
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CRYPTOSPORIDIUM SPP. (C. PARVUM, C. HOMINIS) **IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN**

METHODOLOGY: MICROSCOPIC EXAMINATION, DIRECT IMMUNOFLOUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate or unstained permanent slide
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

CYCLOSPORA CAYETANENSIS **DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CONCENTRATION, MODIFIED ACID-FAST STAIN

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt

CYCLOSPORA CAYETANENSIS **IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN**

METHODOLOGY: MICROSCOPIC EXAMINATION, MODIFIED ACID-FAST STAIN, AUTOFLUORESCENCE

RESTRICTIONS: None
CPT CODE: 87015, 87207
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days of specimen receipt

CYTOMEGALOVIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 86645
SPECIMEN: Serum (0.5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 day of receipt of specimen

DIPHTHERIA

SEE: [CORYNEBACTERIUM DIPHTHERIAE](#)

DIPHYLLOBOTHRIUM LATUM
DETECTION AND IDENTIFICATION

SEE: [PARASITE EXAMINATION, INTESTINAL AND PARASITE IDENTIFICATION](#)

ECHOVIRUS

SEE: [ENTEROVIRUS](#)

ENCEPHALITIS

SEE: [ARBOVIRUS TEST LISTINGS, INDIVIDUAL AGENTS](#)

ENTAMOEBA HISTOLYTICA/DISPAR
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION AND TRICHROME STAIN

RESTRICTIONS: None
CPT CODE: 87177, 88313
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
Sigmoidoscopy scrapings or aspirates mixed with an equal volume of PVA
Abscess material mixed with an equal volume of PVA
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended for diagnosis of intestinal amebiasis.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ENTAMOEBA HISTOLYTICA/DISPAR
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 88313
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ENTERIC BACTERIAL CULTURE, ROUTINE
DETECTION OF BACTERIAL PATHOGENS IN STOOL

METHODOLOGY: CULTURE

Agents Detected: *Salmonella* spp., *Shigella* spp., *Campylobacter* spp., Enterohemorrhagic *E. coli*
RESTRICTIONS: None
CPT CODE: 87045, 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.

SHIPPING:	Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND:	Negative results are reported within 3-4 working days. Positive results are phoned to the submitter as soon as available.

ENTEROBIUS VERMICULARIS DETECTION OF EGGS IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS:	None
CPT CODE:	87172
SPECIMEN:	Commercial paddle Cellophane tape transferred to a glass slide
SHIPPING:	Ship at room temperature.
TURNAROUND:	Within 1 working day
COMMENTS:	A minimum of 4-6 specimens collected on consecutive mornings is recommended for diagnosis. Eggs are not reliably found by routine parasite examination of stool.

ENTEROHEMORRHAGIC *E. COLI* (EHEC)

SEE: [ESCHERICHIA COLI](#), [PATHOGENIC](#), [ESCHERICHIA COLI O157:H7](#)

ENTEROVIRUS DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE AND DFA FOR COXSACKIE, ECHOVIRUS, ENTEROVIRUS, AND POLIO IDENTIFICATION

RESTRICTIONS:	None
CPT CODE:	87252, 87253 for identification
SPECIMEN:	Throat swab (in viral transport medium), Respiratory fluids (1 ml) including bronchoalveolar lavage, nasal wash, pleural fluid, stool, CSF (1 ml), Skin vesicle (see Rash Illness Panel)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Negative results available within 14 days.
COMMENTS:	Dry swab, wood swab, and calcium alginate swabs not acceptable Encephalitis caused by viral agents must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7 DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS:	None
CPT CODE:	87046
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING:	Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND:	Negative results are available within 1-2 working days. Positive results are phoned to submitter as soon as available
COMMENTS:	Included in routine Enteric Bacterial Culture This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7 IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS:	None
CPT CODE:	87077, 87147 x 2
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature.
TURNAROUND:	Identification from pure culture available within 4-6 working days
COMMENTS:	This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

ESCHERICHIA COLI O157:H7 MOLECULAR SUBTYPING

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

**ESCHERICHIA COLI, PATHOGENIC
DETECTION/IDENTIFICATION/CONFIRMATION**

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, SEROTYPING, PCR

RESTRICTIONS:	None
CPT CODE:	87077, 87147, 87798
SPECIMEN:	Appropriate primary isolation plate Actively growing pure culture on suitable medium Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING:	Ship cultures or preserved stool samples at room temperature. Transport fresh stool samples at refrigeration temperature.
TURNAROUND:	Not available
COMMENTS:	Tests may include PCR for virulence factors characteristic of enterohemorrhagic <i>E. coli</i> (EHEC). Toxicogenic non-O157 strains must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**FOOD POISONING (SUSPECTED)
DETECTION OF BACTERIAL PATHOGENS OR ENTEROTOXINS IN IMPLICATED FOOD**

**METHODOLOGY: QUANTITATIVE CULTURE, REVERSED PASSIVE LATEX
AGGLUTINATION**

RESTRICTIONS:	Done for investigation of foodborne illness only. Contact your local Health District or to the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:	87070, 87076 (Anaerobic ID), 87077 (Aerobic ID)
SPECIMEN:	Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available

**FRANCISELLA TULARENSIS
ANTIBODY DETECTION**

RESTRICTIONS:	Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE:	86668
SPECIMEN:	Serum (2 ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available
COMMENTS:	Sent to CDC. This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**FRANCISELLA TULARENSIS
DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include:	Biochemical, molecular, and immunological methods
RESTRICTIONS:	Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE:	87081
SPECIMEN:	See Appendix E
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Negative results available after 5-7 days of incubation
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)	

FRANCISELLA TULARENSIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before sending isolate.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: Not available

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

GASTROENTERITIS, VIRAL
SEE: [NOROVIRUS](#), [ADENOVIRUS](#), [ROTAVIRUS](#)

GIARDIA LAMBLIA
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87015, 87272
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL)
Duodenal contents (aspiration or Entero-Test capsule) mixed with an equal volume of PVA
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: A minimum of 3 stool specimens collected on alternate days is recommended. Traditional methods detect cysts and trophozoites; DFA detects cysts only.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GIARDIA LAMBLIA
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87272
SPECIMEN: Prepared fecal concentrate
Stained or unstained permanent slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

GISA (GLYCOPEPTIDE INTERMEDIATE STAPHYLOCOCCUS AUREUS)
SEE: [STAPHYLOCOCCUS AUREUS GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE \(GISA/VISA\)](#)

GONORRHEA (GC)
SEE: [NEISSERIA GONORRHOEAE](#)

GROUP A STREPTOCOCCUS
SEE: [STREPTOCOCCUS, GROUP A](#)

GROUP B STREPTOCOCCUS
SEE: [STREPTOCOCCUS, GROUP B](#)

GRSA (GLYCOPEPTIDE RESISTANT STAPHYLOCOCCUS AUREUS)
SEE: [STAPHYLOCOCCUS AUREUS, GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)

HAEMOPHILUS DUCREYI
DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR

RESTRICTIONS: Contact the laboratory at (208) 334-2235 ext 257 before requesting this test. See comments.
CPT CODE:
SPECIMEN: Dry swabs (2) of lesion. (kits are available from IBL)
SHIPPING: Ship overnight at refrigeration temperature or on ice pack.
TURNAROUND: Not available
COMMENTS: Sent to CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HAEMOPHILUS INFLUENZAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 6
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available within 2-3 working days

Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HANTAVIRUS
IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: Contact the laboratory (208)334-2235 and/or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 86790 x 2
SPECIMEN: Serum (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Within 1 working day of specimen receipt, if prearranged

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HANTAVIRUS
TOTAL ANTIBODY, RODENT

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: Contact the laboratory (208)334-2235 and/or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: N/A
SPECIMEN: Contact laboratory
SHIPPING: Contact laboratory
TURNAROUND: Not available
COMMENTS: Survey studies only, no single rodents

HEMOLYTIC UREMIC SYNDROME (HUS)
DETECTION OF AGENT IN CLINICAL SAMPLES

SEE ALSO: [ESCHERICHIA COLI, PATHOGENIC, ESCHERICHIA COLI O157:H7](#)

METHODOLOGY: ENZYME IMMUNOASSAY, CULTURE, PCR

RESTRICTIONS: None
CPT CODE: 87046, 87798
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
Other specimen types - contact laboratory
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Within 2-4 working days of specimen receipt
COMMENTS: If HUS is suspected and *E. coli* O157 has not been found, send stool specimen

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**HEPATITIS B
SURFACE ANTIGEN WITH REFLEX TO CONFIRMATION**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 87340, 87341 for confirmation
SPECIMEN: Serum (1.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1X per week

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**HEPATITIS B
SURFACE ANTIBODY**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86706
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1X per week

**HEPATITIS B
CORE TOTAL ANTIBODY**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86704
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

**HEPATITIS C
TOTAL ANTIBODY SCREEN**

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86803
SPECIMEN: Serum (0.5ml), plasma is acceptable
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**HERPES SIMPLEX VIRUS
DETECTION IN CLINICAL SAMPLES**

SEE ALSO: [RASH ILLNESS PANEL](#)

METHODOLOGY: CULTURE WITH DIRECT FLUORESCENT ANTIBODY TYPING FOR HSV1 AND HSV2

RESTRICTIONS: None
CPT CODE: 87252 culture, 87253 typing by DFA
SPECIMEN: Vesicle lesion in viral transport medium
Throat swab in viral transport medium
Genital swab in viral transport medium
Ocular swab in viral transport medium
CSF (1 ml)
Brain tissue
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 7 days for negative result

HERPES SIMPLEX VIRUS
IgG ANTIBODY DETECTION FOR HSV1 AND HSV2

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86695 type 1, 86696 Type2l
SPECIMEN: Serum (0.5 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week

HERPES ZOSTER

SEE: [VARICELLA ZOSTER VIRUS](#)

HIV

SEE: [HUMAN IMMUNODEFICIENCY VIRUS](#)

HOOKWORM

SEE: [PARASITE EXAMINATION, PARASITE IDENTIFICATION](#)

HSV

SEE: [HERPES SIMPLEX VIRUS](#)

HUMAN IMMUNODEFICIENCY VIRUS I
ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO CONFIRMATION

RESTRICTIONS: None
CPT CODE: 86701, 86689 for Western Blot confirmation
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2x per week, 1 day if exposure

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

HUMAN IMMUNODEFICIENCY VIRUS I
ANTIBODY CONFIRMATION

METHODOLOGY: WESTERN BLOT IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86689
SPECIMEN: Serum (preferred), plasma acceptable (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 2X per week, 1 day if exposure

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

INFANT BOTULISM

SEE: [CLOSTRIDIUM BOTULINUM](#)

INFLUENZA A AND B VIRUSES
DETECTION AND SUBTYPING

METHODOLOGY: RT-PCR , CULTURE

RESTRICTIONS: None
CPT CODE: 87252 culture, 87798 RT-PCR
SPECIMEN: Nasopharyngeal swab in viral transport medium, Nasal wash or aspirate
Throat swab in viral transport medium
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 14 days for negative culture, direct fluorescent antibody results within 1-2 days.

Unusual incidences or laboratory confirmed cases must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

INFLUENZA, AVIAN OR NOVEL DETECTION OF RNA IN CLINICAL SAMPLES

METHODOLOGY: RT-PCR

RESTRICTIONS: Prior consultation with the state Office of Epidemiology and Food Protection (208)334-5939 and Laboratory required prior to specimen collection.

CPT CODE:

SPECIMEN: Nasopharyngeal wash/aspirate (0.5 ml)
Nasopharyngeal/oropharyngeal swab in viral transport medium
Bronchoalveolar lavage, tracheal aspirate in sterile vials.
Throat swab in viral transport medium

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: 1 day

COMMENTS: Positive test results are to be considered preliminary until confirmed by the CDC.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA PNEUMOPHILA DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, 16S rRNA SEQUENCE ANALYSIS

RESTRICTIONS: None

CPT CODE: 87278

SPECIMEN: Lower respiratory secretions (>1 ml)
Pleural fluid (>1 ml)
Lung tissue in just enough sterile saline to keep moist

SHIPPING: Send to the laboratory as soon as possible.
Ship at refrigeration temperature.

TURNAROUND: Within 5 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, 16S rRNA SEQUENCE ANALYSIS

RESTRICTIONS: None

CPT CODE: 87081, 87278

SPECIMEN: Lower respiratory secretions (>1 ml)
Pleural fluid (>1 ml)
Lung tissue in just enough sterile saline to keep moist

SHIPPING: Ship at refrigeration temperature.

TURNAROUND: Within 5 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEGIONELLA SPECIES DETECTION IN ENVIRONMENTAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: Contact the laboratory (208) 334-2235 before requesting this test.

TURNAROUND: Not available

LEGIONELLA SPECIES IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING, 16S rRNA SEQUENCE ANALYSIS

RESTRICTIONS: None

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Within 5 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to

LEPTOSPIRA SPP.

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: SEROLOGIC AND MOLECULAR METHODS

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: N/A

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Not available

COMMENTS: Sent to CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPTOSPIRA SPP.

IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: MICROSCOPIC AGGLUTINATION OR ELISA

RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 86720

SPECIMEN: Serum (1ml)

SHIPPING: Ship frozen or refrigerated.

TURNAROUND: Not available

COMMENTS: Sent to CDC

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LEPROSY

SEE: [MYCOBACTERIUM LEPRAE](#)

LEPTOSPIROSIS

SEE: [LEPTOSPIRA SPP.](#)

LISTERIA MONOCYTOGENES

MOLECULAR SUBTYPING

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

LISTERIA MONOCYTOGENES

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, 16s rRNA Sequence Analysis

RESTRICTIONS: None

CPT CODE: 87046 (Stool), 87081 (Other sources)

SPECIMEN: Blood - send inoculated blood culture bottle

CSF, body fluids (1 ml)

Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)

SHIPPING: Ship blood culture or stool in transport medium at room temperature.

Ship other clinical samples at refrigeration temperature.

TURNAROUND: Negative results available after 4-7 days of incubation

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

LISTERIA MONOCYTOGENES

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Identification from pure culture within 3 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MALARIA

SEE: [PLASMODIUM SPP.](#)

MEASLES (RUBEOLA) VIRUS

IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS: None
CPT CODE: 86765
SPECIMEN: Acute phase serum or acute and convalescent paired sera, (1 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: IgG 1X per week, IgM upon request

Measles (Rubeola) must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MENINGITIS, VIRAL

SEE: [ENTEROVIRUS](#)

MENINGOCOCCEMIA

SEE: [NEISSERIA MENINGITIDIS](#)

MENINGOCOCCUS

SEE: [NEISSERIA MENINGITIDIS](#)

MENINGOENCEPHALITIS, VIRAL

SEE: [ARBOVIRUS](#), [ENTEROVIRUS](#), OTHER INDIVIDUAL AGENTS AS INDICATED

METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

SEE: [STAPHYLOCOCCUS AUREUS](#), [METHICILLIN RESISTANT](#)

MICROFILARIAE

SEE: [PARASITE EXAMINATION, BLOOD](#)

MONKEYPOX VIRUS

DETECTION OF DNA IN CLINICAL SAMPLES

METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87798
SPECIMEN: Roof of lesion in a sterile container
Swab of lesion, dry or in transport medium. Contact lab for details.
Touch-prep (slide) of vesicular fluid
SHIPPING: Contact laboratory for transport instructions.
TURNAROUND: Not available
COMMENTS: This test is for research use only.

MRSA (METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS*)

SEE: [STAPHYLOCOCCUS AUREUS](#), [METHICILLIN-RESISTANT](#)

MUMPS VIRUS

IgG and IgM ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY AND INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 86735
SPECIMEN: Congenital or acute phase serum or paired sera
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 1x per week, IgM on request

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

MYCOBACTERIUM AFRICANUM

SEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM AVIUM COMPLEX

SEE: [MYCOBACTERIUM SPP. \(NOT TUBERCULOSIS\)](#)

MYCOBACTERIUM BOVIS BCG

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: CONVENTIONAL BIOCHEMICALS, 16S rDNA SEQUENCING, SPOLIGOTYPING

RESTRICTIONS:	None
CPT CODE:	87118
SPECIMEN:	Actively growing culture on suitable solid medium Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING:	Ship at room temperature, sealed culture system.
TURNAROUND:	Not available
COMMENTS:	<i>M. bovis</i> is a member of the <i>M. tuberculosis</i> complex and is routinely reported as such. Specific identification may be requested to rule out dissemination as a complication of BCG therapy against bladder cancer. Spoligotyping performed at regional genotyping laboratory.

MYCOBACTERIUM CANETTI

SEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM LEPRAE

Contact Lab for Submission Requirements

MYCOBACTERIUM MICROTI

SEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)

MYCOBACTERIUM SPP.

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: NUCLEIC ACID PROBE, 16S rDNA SEQUENCING, AND CONVENTIONAL BIOCHEMICALS

RESTRICTIONS:	None
CPT CODE:	87118
SPECIMEN:	Actively growing pure culture on suitable solid medium Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING:	Ship at room temperature, sealed culture system.
TURNAROUND:	Probe results available within 3 working days. Biochemical identification varies.

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS)

ANTIMICROBIAL SUSCEPTIBILITY TESTING

RESTRICTIONS:	Testing is done on request only and must be billed directly to the submitter.
CPT CODE:	87190
SPECIMEN:	Actively growing pure culture on suitable solid medium Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING:	Ship at room temperature, sealed culture system.
TURNAROUND:	Varies
COMMENTS:	Isolates are sent to CDC or National Jewish Mycobacterial Reference Lab, Denver, CO.

MYCOBACTERIUM SPP. (NOT TUBERCULOSIS)

DETECTION IN CLINICAL SAMPLES

METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE

RESTRICTIONS:	None
CPT CODE:	87015, 87206, 86116
SPECIMEN:	See Appendix F
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Smear available within 1 working day. Negative culture results available after 6 weeks of incubation.

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
ANTIMICROBIAL SUSCEPTIBILITY TESTING, FIRST-LINE DRUGS**

METHODOLOGY: PERFORMED BY LIQUID CULTURE SYSTEM

Drugs Included in Panel: isoniazid, rifampin, ethambutol, and pyrazinamide
RESTRICTIONS: Done automatically on initial patient isolate and subsequent isolates with evidence of treatment failure.
CPT CODE: 87190 x 5
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Usually within 28 days of receipt or isolation of organism.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
ANTIMICROBIAL SUSCEPTIBILITY TESTING, SECOND-LINE DRUGS**

RESTRICTIONS: Done principally on MDRTB isolates (resistant to 2 or more first-line drugs)
CPT CODE: 87190 x variable
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Varies
COMMENTS: Sent to CDC or National Jewish Mycobacterial Reference Lab, Denver, CO.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: DIRECT ACID-FAST SMEAR, CULTURE

RESTRICTIONS: None
CPT CODE: 87015, 87206, 86116
SPECIMEN: See [Appendix F](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Smear available within 1 working day. Negative culture results available after 6 weeks of incubation.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

**METHODOLOGY: NUCLEIC ACID PROBE, 16S rDNA SEQUENCING, AND CONVENTIONAL
BIOCHEMICALS**

RESTRICTIONS: None
CPT CODE: 86118, 87555
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.
SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Probe results available within 3 working days. Biochemical identification varies.
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**MYCOBACTERIUM TUBERCULOSIS COMPLEX
MOLECULAR SUBTYPING**

**METHODOLOGY: SPOLIGOTYPING, MIRU TYPING, RESTRICTION FRAGMENT LENGTH
POLYMORPHISM**

RESTRICTIONS: Done at the request of epidemiology staff only.
CPT CODE: N/A
SPECIMEN: Actively growing pure culture on suitable solid medium
Growth in BACTEC or ESP bottle, MGIT tube etc.

SHIPPING: Ship at room temperature, sealed culture system.
TURNAROUND: Not available
COMMENTS: Sent to regional genotyping laboratory
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
NUCLEIC ACID DETECTION

METHODOLOGY: NUCLEIC ACID AMPLIFICATION

RESTRICTIONS: None.
CPT CODE: 87801
SPECIMEN: Endocervical / vaginal / male urethral swab, urine (collected with Gen-Probe specific collection kits only)
SHIPPING: Ship at room temperature
TURNAROUND: Daily
COMMENTS: This method is not recommended for medico legal cases and is not acceptable for throat, conjunctival, or rectal swabs or for antimicrobial sensitivity testing. Only culture procedures are recommended for these situations. The IBL will continue to perform culture tests for *N. gonorrhoeae* under these circumstances.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87081
SPECIMEN: Inoculated MTM or JEMBEC plates
SHIPPING: Ship at room temperature ASAP otherwise incubate plates for 18-24 hrs. at 5-10% CO₂ before sending. Ship in CO₂ environment.
TURNAROUND: 2 days for a negative culture
COMMENTS: Non-genital sites only

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA GONORRHOEAE
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, NUCLEIC ACID PROBE

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature in CO₂ environment.
TURNAROUND: 2 working days upon receipt of culture

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NEISSERIA MENINGITIDIS
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROGROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 6
SPECIMEN: Actively growing pure culture on suitable solid medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1-2 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NOROVIRUS
DETECTION OF RNA IN CLINICAL SAMPLES

METHODOLOGY: RT-PCR

RESTRICTIONS: Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 87798
SPECIMEN: Stool, fresh or in ParaPak C&S - fill to line (approximately 5ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: This test is used for investigations of gastroenteritis outbreaks only. No single diagnostic specimens accepted.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

NORWALK-LIKE VIRUS

SEE: [NOROVIRUS](#)

OVA AND PARASITES, ROUTINE

SEE: [PARASITE EXAMINATION, INTESTINAL](#)

PARACOCCIDIoidES BRASILIENSIS

IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

SEE: [FUNGUS IDENTIFICATION](#)

PARAINFLUENZA VIRUS 1, 2, AND 3 DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: None
CPT CODE: 87252 Culture, 87253 DFA
SPECIMEN: Nasal swab sample in viral transport medium
Throat swab in viral transport medium
Aspirate/Wash (1ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Negative culture results available within 14 days. Direct Fluorescent Antibody within 1-2 days
COMMENTS: Dry swabs, wood, and calcium alginate swaps are unacceptable

PARASITE EXAMINATION, BLOOD

SEE ALSO: [PLASMODIUM](#)

METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD SMEARS

Agents Detected: *Plasmodium* spp., *Trypanosoma* spp., microfilariae, *Babesia* spp.
RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry and EDTA blood tube - filled
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature
TURNAROUND: Within 1 working day
COMMENTS: Examination of blood films collected every 6-8 hours for up to 3 days may be to diagnose or rule out infection.

PARASITE EXAMINATION, INTESTINAL DETECTION IN STOOL

METHODOLOGY: FORMALIN ETHYL ACETATE CONCENTRATION, TRICHOME STAIN, ACID-FAST STAIN

Agents Detected: Eggs and larvae of intestinal helminths, cysts and trophozoites of intestinal protozoa, and oocysts of coccidia (Routine O&P)
RESTRICTIONS: None
CPT CODE: 87177, 88313
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from IBL. Call (208)334 2235 ext 264)
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days
COMMENTS: Minimum of 3 stool specimens collected on alternate days recommended for detection of intestinal parasites.

PARASITE IDENTIFICATION (ADULT PARASITE) IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN

METHODOLOGY: GROSS OR MICROSCOPIC EXAMINATION

RESTRICTIONS: None

CPT CODE: 87169
SPECIMEN: Whole worm, scolex, or proglottids, in saline or 10% formalin or 70% alcohol
SHIPPING: Ship at room temperature.
TURNAROUND: Within 3 working days

**PARASITE IDENTIFICATION, BLOOD
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN**

SEE ALSO: [PLASMODIUM](#)

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Transport slides in protective holder at room temperature.
TURNAROUND: Within 3 working days

**PARASITE IDENTIFICATION (EGGS, LARVAE, CYSTS)
IDENTIFICATION/CONFIRMATION OF REFERRED SPECIMEN**

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Prepared specimen concentrate
Stained or unstained slides
SHIPPING: Ship at room temperature.
TURNAROUND: Within 1 working day

PERTUSSIS
SEE: [BORDETELLA PERTUSSIS](#)

PFGE
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

PINWORM
SEE: [ENTEROBIUS VERMICULARIS](#)

PLAGUE
SEE: [YERSINIA PESTIS](#)

**PLASMODIUM SPP.
CONFIRMATION AND SPECIES IDENTIFICATION OF REFERRED SPECIMENS**

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature
TURNAROUND: Within 1 working day of specimen receipt
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

**PLASMODIUM SPP.
DETECTION IN BLOOD**

**METHODOLOGY: MICROSCOPIC EXAMINATION OF GIEMSA STAINED BLOOD
SMEARS**

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
SHIPPING: Transport slides in protective holder at room temperature.
Ship EDTA blood at refrigeration temperature

TURNAROUND: Within 1 working day of specimen receipt

PLESIOMONAS SHIGELLOIDES **DETECTION IN STOOL**

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local health district before requesting this test.
CPT CODE: 87046
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Within 4-6 days working days

PLESIOMONAS SHIGELLOIDES **IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: BIOCHEMICAL TESTING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 4-6 working days

PNEUMONIC PLAGUE

SEE: [*YERSINIA PESTIS*](#)

POLIOVIRUS

SEE: [*ENTEROVIRUS*](#)

PONTIAC FEVER

SEE: [*LEGIONELLA SPP.*](#)

PULSED FIELD GEL ELECTROPHORESIS

RESTRICTIONS: Automatically performed on all isolates of Salmonella, Shigella, and Enterohemorrhagic E. coli submitted to the IBL. Performed for epidemiological purposes only. Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: N/A
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Not available

Q FEVER

SEE: [*COXIELLA BURNETII*](#)

RABIES VIRUS **DIRECT DETECTION IN ANIMAL BRAIN TISSUE**

METHODOLOGY: DIRECT FLUORESCENT ANTIBODY

RESTRICTIONS: Contact virology at (208)334-2235 before requesting this test.
CPT CODE: N/A
SPECIMEN: Submit removed head (over 8 lbs) to the Animal Health Lab (208) 332-8570; bats may be submitted directly to the IBL.
SHIPPING: Refrigeration temperature, do not freeze.
TURNAROUND: 2 days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

RASH ILLNESS PANEL

Tests Included in Panel: Culture, molecular, or immunological tests, including methods for Varicella Zoster Virus, Herpes Simplex Virus Types 1 & 2, Vaccinia, orthopox viruses and bacteria as indicated by symptomology
Tests may be performed individually. See individual agent listing.
RESTRICTIONS: Contact your local health district or the state Office of Epidemiology and Food Protection (208)334-5939

	before requesting this test.
CPT CODE:	
SPECIMEN:	Roof of lesion in a sterile container Swab of lesion, dry or in transport medium. Contact lab for details. Touch-prep (slide) of vesicular fluid
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available
COMMENTS:	These tests are recommended for patients exhibiting acute, generalized, vesicular or pustular rash illness. For details on evaluating patients see the CDC poster "Evaluating Patients for Smallpox" (http://www.bt.cdc.gov/agent/smallpox/diagnosis/index.asp)

RESPIRATORY SYNCYTIAL VIRUS DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE, DIRECT FLUORESCENT ANTIBODY (DFA)

RESTRICTIONS:	None
CPT CODE:	87252 culture, 87253 DFA
SPECIMEN:	Nasal swab in viral transport medium Throat swab in viral transport medium Nasal wash/aspirate (1ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Negative culture in 14 days. DFA results available within 1 day.
COMMENTS:	Dry swab, wood and calcium alginate swab unacceptable

RICIN TOXIN DETECTION DETECTION IN NON-CLINICAL SAMPLES

METHODOLOGY: TIME-RESOLVED FLUORESCENCE, PCR

RESTRICTIONS:	For investigation of intentional release (terrorism) only. Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:	N/A
SPECIMEN:	Plant material in envelope Paper Powder Water, Soil, Food, Drink Environmental surface wipe
TURNAROUND:	Not available

ROTAVIRUS DETECTION OF ANTIGEN IN CLINICAL SAMPLES

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS:	None
CPT CODE:	87425
SPECIMEN:	1 g stool or rectal swabs collected in containers that do not contain preservatives. Rectal swabs must contain 30-40 mg of raw stool.
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Within 1 working day of receipt of specimen

ROUTINE O&P

SEE: [PARASITE EXAMINATION, INTESTINAL](#)

RSV

SEE: [RESPIRATORY SYNCYTIAL VIRUS](#)

RUBELLA VIRUS IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY

RESTRICTIONS:	None
CPT CODE:	86762
SPECIMEN:	Acute phase serum or paired sera (0.5 ml)
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	IgG 1X per week, IgM upon request

RUBEOLA VIRUS

SEE: [MEASLES VIRUS](#)

SAINT LOUIS ENCEPHALITIS

SEE: [ARBOVIRUS TEST LISTINGS](#)

SALMONELLA SPP. DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87045
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml).
Unpreserved stool samples must be received within 2 hours of collection.
Rectal swab
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days. Positive results phoned to submitter as soon as available.
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP. IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 15
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SALMONELLA SPP. MOLECULAR SUBTYPING

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

SCHISTOSOMA SPP. DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CONCENTRATION AND MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH)
Urine - 15 ml, no preservatives
SHIPPING: Ship preserved stool at room temperature, urine at refrigeration temperature.
TURNAROUND: Within 3 working days
COMMENTS: *S. haematobium* eggs are usually detected in urine but may be found in stool. Eggs of other *Schistosoma* spp. are found primarily in stool. Multiple examinations may be to detect eggs in light or chronic infections.

SCHISTOSOMA SPP. IDENTIFICATION/CONFIRMATION OF REFERRED SAMPLES

SEE: [PARASITE IDENTIFICATION](#)

SCHISTOSOMIASIS

SEE: [SCHISTOSOMA SPP.](#)

SHIGELLA SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: CULTURE

RESTRICTIONS: None
CPT CODE: 87045
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml).
Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND: Negative results available within 2-4 working days. Positive results phoned to submitter as soon as available.
COMMENTS: Included in routine Enteric Bacterial Culture
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SHIGELLA SPP.
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

SHIGELLA SPP.
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077, 87147 x 5
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Identification from pure culture available within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

SHIGELLA SPP.
MOLECULAR SUBTYPING
SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

SMALLPOX
SEE: [RASH ILLNESS PANEL](#)
RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

STAPHYLOCOCCAL ENTEROTOXIN B
DETECTION IN NON-CLINICAL SAMPLES

METHODOLOGY: TIME-RESOLVED FLUORESCENCE

RESTRICTIONS: For investigation of intentional release (terrorism) only. Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: N/A
SPECIMEN: Food
Soil
Water
Environmental surface wipe
TURNAROUND: Not available

STAPHYLOCOCCUS AUREUS, GASTROINTESTINAL DISEASE
DETECTION IN STOOL OR IMPLICATED FOOD

METHODOLOGY: CULTURE

RESTRICTIONS: Done for investigation of foodborne illness only. Contact your local Health District or the state Office of

Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE: 87046 (Stool)
SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml)
Implicated food - minimum of 10 g in original container or transferred to sterile container using sterile instruments.
SHIPPING: Ship stool at room temperature, food at refrigeration temperature.
TURNAROUND: Within 4-6 working days
This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN RESISTANT (GRSA/VRSA)**

CONFIRMATION OF VANCOMYCIN MIC \geq 32 UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None
CPT CODE: 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-5 working days of specimen receipt
COMMENTS: Call Idaho Bureau of Laboratories (208)334-2235 immediately if GRSA/VRSA is suspected.

***STAPHYLOCOCCUS AUREUS*, GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE (GISA/VISA)**

CONFIRMATION OF VANCOMYCIN MIC \geq 4 UG/ML

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None
CPT CODE: 87184 (Disk diffusion), 87181 (E-test), 87186 (Microdilution)
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-5 working days of specimen receipt
COMMENTS: Call the Idaho Bureau of Laboratories at (208) 334-2235 immediately if GISA/VISA is suspected.

***STAPHYLOCOCCUS AUREUS*, METHICILLIN RESISTANT (MRSA) IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

METHODOLOGY: MIC DETERMINATION BY MULTIPLE METHODS

RESTRICTIONS: None
CPT CODE: 87077 (Identification), 87181 (E-test),
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-3 working days

***STAPHYLOCOCCUS AUREUS*, METHICILLIN RESISTANT (MRSA) MOLECULAR SUBTYPING**

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

STREPTOCOCCUS PNEUMONIAE

IDENTIFICATION/CONFIRMATION/SEROTYPING OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, CAPSULAR SEROTYPING

RESTRICTIONS: None
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Biochemical testing within 2-4 working days
COMMENTS: Sent to CDC for serotyping—turnaround variable
Invasive disease caused by this agent be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***STREPTOCOCCUS*, GROUP A ANTIMICROBIAL SUSCEPTIBILITY TESTING**

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

STREPTOCOCCUS, GROUP A
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, LANCEFIELD GROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-4 working days
Invasive disease caused by this agent must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

STREPTOCOCCUS, GROUP B
ANTIMICROBIAL SUSCEPTIBILITY TESTING
SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

STREPTOCOCCUS, GROUP B
IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, LANCEFIELD GROUPING

RESTRICTIONS: None
CPT CODE: 87077, 87147
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room temperature.
TURNAROUND: Within 2-4 working days

STRONGYLOIDES SPP.
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87177
SPECIMEN: Stool preserved in both formalin and PVA - fill to line (kits are available from MDH); Duodenal contents (aspiration or Entero-Test capsule)
Identification/confirmation: prepared fecal or duodenal sample
Other specimen types, contact laboratory for information
SHIPPING: Ship preserved stool at room temperature, duodenal contents at refrigeration temperature.
TURNAROUND: Within 3 working days

STRONGYLOIDES SPP.
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE
SEE: [PARASITE, IDENTIFICATION](#)

SYPHILIS
SEE: [TREPONEMA PALLIDUM](#)

TAENIA SPP.
IDENTIFICATION/CONFIRMATION IN REFERRED SAMPLE
SEE: [PARASITE EXAMINATION, INTESTINAL](#) AND [PARASITE IDENTIFICATION](#)

TETANUS
SEE: [CLOSTRIDIUM TETANI](#)

TOXIC SHOCK
SEE: [STAPHYLOCOCCUS AUREUS \(TOXIC SHOCK\)](#) AND [STREPTOCOCCUS, GROUP A \(TOXIC SHOCK\)](#)

TREPONEMA PALLIDUM
VDRL WITH REFLEX TO TITER AND TPPA CONFIRMATION

METHODOLOGY: VDRL, TP-PA

RESTRICTIONS: None
CPT CODE: 86592 VDRL, 86593 VDRLQ, 86781 TPPA
SPECIMEN: Serum (0.5 ml), CSF (0.5nl)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 5x per week, TP-PA 2x per week

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

***TRYPANOSOMA BRUCEI* SPP.**
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
CSF - as much as possible
SHIPPING: Ship at room temperature. Transport EDTA blood and CSF to lab as soon as possible.
Transport slides in protective holder.
TURNAROUND: Within 1 working day of specimen receipt
COMMENTS: Trypomastigotes are present in the blood in largest numbers during febrile periods. Examination of multiple daily blood samples may be necessary for detection.

***TRYPANOSOMA BRUCEI* SPP.**
IDENTIFICATION/CONFIRMATION IN REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Within 1 working day of specimen receipt

TRYPANOSOMA CRUZI
DETECTION IN CLINICAL SAMPLES

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - 3 sets, air-dry
EDTA blood tube - filled
Tissue imprints, dried
Lesion exudate smears, dried
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Usually within 1 working day of specimen receipt

TRYPANOSOMA CRUZI
IDENTIFICATION/CONFIRMATION IN REFERRED SPECIMEN

METHODOLOGY: MICROSCOPIC EXAMINATION

RESTRICTIONS: None
CPT CODE: 87207
SPECIMEN: Thick and thin blood films - stained or unstained
SHIPPING: Ship at room temperature.
Transport slides in protective holder.
TURNAROUND: Usually within 1 working day of specimen receipt

TRYPANOSOMIASIS, AFRICAN
SEE: [*TRYPANOSOMA BRUCEI* SPP.](#)

TRYPANOSOMIASIS, AMERICANSEE: [TRYPANOSOMA CRUZI](#)**TUBERCULOSIS**SEE: [MYCOBACTERIUM TUBERCULOSIS COMPLEX](#)**TULAREMIA**SEE: [FRANCISELLA TULARENSIS](#)**UNDULANT FEVER**SEE: [BRUCELLA SPP.](#)**VACCINIA VIRUS****DETECTION OF DNA IN CLINICAL SAMPLES**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)**

RESTRICTIONS:	Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:	87798
SPECIMEN:	Roof of lesion in a sterile container Swab of lesion, dry or in transport medium. Contact lab for details. Touch-prep (slide) of vesicular fluid
SHIPPING:	Contact laboratory for transport instructions.
TURNAROUND:	1 day
COMMENTS:	This test is for research use only.

VANCOMYCIN RESISTANT STAPHYLOCOCCUS AUREUS (VRSA)SEE: [STAPHYLOCOCCUS AUREUS](#); [GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)**VARICELLA ZOSTER VIRUS****ANTIGEN DETECTION**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: DIRECT FLUORESCENT ANTIBODY**

RESTRICTIONS:	None
CPT CODE:	87290
SPECIMEN:	Scraping or swab from base of lesion in viral transport medium Primary viral isolate in tissue culture
SHIPPING:	Ship clinical sample at refrigeration temperature. Ship primary isolate at room temp.
TURNAROUND:	Within 1 working day of specimen receipt

VARICELLA ZOSTER VIRUS**DETECTION IN CLINICAL SAMPLES**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: CULTURE**

RESTRICTIONS:	None
CPT CODE:	87252
SPECIMEN:	Roof of lesion in a sterile container Swab of lesion in viral transport medium. Vesicular fluid sample in viral transport medium
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	14 days to confirm negative culture
COMMENTS:	Dry swab, wood swab, and calcium alginate swabs not acceptable

VARICELLA ZOSTER VIRUS**DETECTION OF DNA IN CLINICAL SAMPLES**SEE ALSO: [RASH ILLNESS PANEL](#)**METHODOLOGY: PCR (LABORATORY RESPONSE NETWORK PROTOCOLS)**

RESTRICTIONS:	Contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.
CPT CODE:	87798
SPECIMEN:	Roof of lesion in a sterile container

	Swab of lesion, dry or in transport medium. Contact lab for details.
	Touch-prep (slide) of vesicular fluid
SHIPPING:	Ship at refrigeration temperature.
TURNAROUND:	Not available
COMMENTS:	This test is for research use only.

VARICELLA ZOSTER VIRUS IgM AND IgG ANTIBODY DETECTION

METHODOLOGY: ENZYME IMMUNOASSAY AND INDIRECT FLUORESCENT ANTIBODY

RESTRICTIONS:	none
CPT CODE:	86787
SPECIMEN:	Acute phase serum or paired sera (0.5 ml)
SHIPPING:	Ship at room or refrigeration temperature.
TURNAROUND:	1x per week, IgM on request

VARIOLA VIRUS

SEE: [RASH ILLNESS PANEL](#)

RESTRICTIONS: If smallpox is suspected, contact the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

VIBRIO SPP. (INCLUDING V. CHOLERAЕ) ANTIMICROBIAL SUSCEPTIBILITY TESTING

SEE: [ANTIMICROBIAL SUSCEPTIBILITY TESTING](#)

VIBRIO SPP. (INCLUDING V. CHOLERAЕ) IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, SEROTYPING

RESTRICTIONS:	None
CPT CODE:	87077
SPECIMEN:	Actively growing pure culture on suitable medium
SHIPPING:	Ship at room temperature.
TURNAROUND:	Identification from pure culture within 4-6 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

VIBRIO SPP. (INCLUDING V. CHOLERAЕ) DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS:	None
CPT CODE:	87046
SPECIMEN:	Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5 ml). Unpreserved stool samples must be received within 2 hours of collection.
SHIPPING:	Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.
TURNAROUND:	Negative results available in 3-4 working days. Positive results phoned to submitter as soon as available.

VIRAL GASTROENTERITIS

SEE: INDIVIDUAL AGENTS: [NOROVIRUS](#), [ADENOVIRUS](#), [ROTAVIRUS](#)

VIRAL MENINGITIS

SEE: [ENTEROVIRUS](#)

VISA (VANCOMYCIN INTERMEDIATE STAPHYLOCOCCUS AUREUS)

SEE: [STAPHYLOCOCCUS AUREUS](#), [GLYCOPEPTIDE/VANCOMYCIN INTERMEDIATE \(GISA/VISA\)](#)

VRSA (VANCOMYCIN RESISTANT STAPHYLOCOCCUS AUREUS)

SEE: [STAPHYLOCOCCUS AUREUS](#), [GLYCOPEPTIDE/VANCOMYCIN RESISTANT \(GRSA/VRSA\)](#)

VZV

SEE: [VARICELLA ZOSTER VIRUS](#)

WEST NILE VIRUS DETECTION OF RNA

METHODOLOGY: PCR

WNV PCR may be performed as part of the Arbovirus PCR Panel.

RESTRICTIONS: Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: NA

SPECIMEN: Mosquitoes (collected by trapping)
Birds (oral swab on corvids, tissue on raptors)

SHIPPING: Ship at refrigeration temperature

TURNAROUND: 1 day for birds, 2 days for mosquitoes

COMMENTS: This test is for research use only.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WEST NILE VIRUS IgM AND IgG ANTIBODY DETECTION

SEE ALSO: [ARBOVIRUS SEROLOGY PANEL](#)

METHODOLOGY: ENZYME IMMUNOASSAY WITH REFLEX TO MIA AND PRNT FOR CONFIRMATION

RESTRICTIONS: Contact your local Health District or the state Office of Epidemiology and Food Protection (208)334-5939 before requesting this test.

CPT CODE: 86790 (ELISA)

SPECIMEN: Serum (1 ml)
CSF (1.5-2.0 ml)

SHIPPING: Ship within 24 hours at refrigeration temperature.

TURNAROUND: Within 1- working days of specimen receipt

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

WESTERN EQUINE ENCEPHALITIS

SEE: [ARBOVIRUS TEST LISTINGS](#)

WHOOPIING COUGH

SEE: [BORDETELLA PERTUSSIS](#)

WORM IDENTIFICATION

SEE: [PARASITE IDENTIFICATION \(ADULT PARASITE\)](#)

YERSINIA ENTEROCOLITICA DETECTION IN STOOL

METHODOLOGY: CULTURE

RESTRICTIONS: None

CPT CODE: 87046

SPECIMEN: Stool in ParaPak C&S, Modified Carey-Blair or equivalent - fill to line (approximately 5ml).
Unpreserved stool samples must be received within 2 hours of collection.

SHIPPING: Ship preserved samples at room temperature. Transport fresh samples at refrigeration temperature.

TURNAROUND: Negative results available within 3-4 working days. Positive results phoned to submitter as soon as available.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA ENTEROCOLITICA IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE

METHODOLOGY: BIOCHEMICAL TESTING, BIOTYPING

RESTRICTIONS: None

CPT CODE: 87077

SPECIMEN: Actively growing pure culture on suitable medium

SHIPPING: Ship at room temperature.

TURNAROUND: Identification from pure culture within 4-6 working days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA ENTEROCOLITICA **MOLECULAR SUBTYPING**

SEE: [PULSED-FIELD GEL ELECTROPHORESIS](#)

YERSINIA PESTIS **ANTIBODY DETECTION**

RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.
CPT CODE: 86793
SPECIMEN: Serum (2 ml)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: Not available
COMMENTS: Sent to CDC.

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

YERSINIA PESTIS **DETECTION IN CLINICAL SAMPLES**

METHODOLOGY: CULTURE AND LABORATORY RESPONSE NETWORK PROTOCOLS

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 332-2235 before requesting this test.
CPT CODE: 87081
SPECIMEN: See [Appendix G](#)
SHIPPING: Ship at refrigeration temperature.
TURNAROUND: 4 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

YERSINIA PESTIS **IDENTIFICATION/CONFIRMATION OF REFERRED ISOLATE**

Tests May Include: Biochemical, molecular, and immunological methods
RESTRICTIONS: Contact laboratory at (208) 334-2235 before requesting this test.
CPT CODE: 87077
SPECIMEN: Actively growing pure culture on suitable medium
SHIPPING: Ship at room or refrigeration temperature.
TURNAROUND: 2-3 days

This disease must be reported to your local Health District or to the state Office of Epidemiology and Food Protection according to the Rules and Regulations Governing Idaho Reportable Diseases (IDAPA 16.02.10)

Note: This organism has been designated as a Select Agent (Select Agent Regulation, 42 CFR, 73, Interim Final Rule). Special handling criteria apply. Please contact the laboratory for special instructions.

APPENDIX A. Specimen Requirements for *Bacillus anthracis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Cutaneous anthrax	Vesicle Swab	2 swabs	Vesicle should be unroofed and 2 sterile, dry swabs should be soaked in the vesicular fluid.
	Vesicle Aspirate	1 ml	An aspirate of the fluid is also an appropriate specimen.
	Eschar Swab	2 swabs	Roll swabs beneath the edge of the eschar without removing it.
	Fresh/frozen tissue	1 punch biopsy	For specialty testing, must be preapproved by IBL
Gastrointestinal anthrax	Stool	5 g	If unable to obtain stool, obtain rectal swab by inserting swab 1 inch beyond anal sphincter.
	Rectal swab	1 swab	
Inhalation anthrax	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
	Sputum	1 ml	If patient has a productive cough, this is the specimen of choice in the early course of the disease
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
Meningitis	CSF	1 ml	Centrifuge ≥ 1 ml of fluid
Blood	EDTA blood	1 ml	For molecular testing, must be pre-approved by IBL
	Serum/plasma	2 ml	To be sent to CDC for testing, must be pre-approved by IBL
	Blood culture	5 ml	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Other 1 ml	Pleural fluid	1 ml	

APPENDIX B. Specimen Requirements for *Brucella* spp.

Specimen Type	Minimum Volume	Collection Comments
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Multiple specimens increase possibility of obtaining a positive culture.
Bone Marrow blood culture in bottle fluid	1 ml	Collect appropriate bone marrow volume per manufacturer's recommendation. Some blood culture systems are appropriate for bone marrow.
Abscess material	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Lymph node, liver/spleen biopsy	1-5 g	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Synovial fluid, CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Serum: Acute and Convalescent	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.

APPENDIX C. Specimen Requirements for *Burkholderia* spp.

Specimen type	Minimum Volume	Collection Comments
Abscess material, tissues	1 ml	Collect tissues and fluids rather than swabs, when possible. Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
CSF, other body fluids	1 ml	Collect as needed based on clinical presentation. Appropriate Postmortem specimen.
Sputum	1 ml	
Skin swab	1 swab	
Urine	1 ml	Collect a midstream clean-catch or a catheterized specimen.
Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible.
Throat or Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be pre-approved by IBL.
Serum	1 ml	Collect in serum separator tube (SST™) or red top tube. For molecular testing, must be pre-approved by IBL.

APPENDIX D. Collection and Transport of Samples for Botulism

Note: Testing (toxin detection and culture) is performed only for patients exhibiting symptoms consistent with botulism. The Idaho Bureau of Laboratories does not currently perform toxin testing but forwards specimens to the Washington Department of Health Laboratories for testing. Botulism testing requires pre-approval by the Division of Health. Please ask the requesting physician to contact the state Office of Epidemiology and Food Protection (208-334-5939) to order this test. A list of patient medications should accompany specimens, since some medications may interfere with toxin detection.

Special Pathogens Collection and Submission Instructions				
<i>Clostridium botulinum</i>				
Type Of Botulism	Specimen	Collection	Results/Tat	Remarks
Food Botulism	Serum	A 5 - 15 ml specimen (preferred) collected soon after onset of symptoms and before antitoxin is given	All results are from 4 hours to 14 working days for Food and Infant & wound botulism	Advise Lab if any drugs have been given Specimens (food, stool, serum) should be submitted on suspect cases. See WAC 246.100-231 for further details
	Gastric Material	Walnut-size (50 gm)		<i>For all specimens, unless otherwise specified:</i>
	Stool	10 - 50 grams (preferably walnut-size). Enema material is acceptable. Obtain specimen from sterile (non-bacteriostatic) water or saline enema. A volume of 20 ml collected after enema is sufficient.		Place specimen in a sterile, leak-proof container, place in plastic bag, then in an insulated shipping container with ice packs
	Vomitus	10 - 15 ml		Ship cold*
	Food	Unopened food, food remnants, dishwasher-washed/unwashed container		DO NOT FREEZE
Infant Botulism	Stool	Frequently difficult to obtain a sufficient quantity. Obtain specimen from sterile (non-bacteriostatic) water or saline enema. A volume of 20-30 ml collected is sufficient.		
	Autopsy Specimens	Intestinal samples should be taken from different levels (small bowel, proximal colon, distal colon)		Prior approval by CD Epidemiology required (206) 418-5500
Wound Botulism	Serum	Same as serum above	4-96 hours	Notify Special Bacteriological Pathogens Unit as to when and how specimens are being shipped (206) 418-5452
	Tissue	Representative tissue sample	2-14 working days	
	Swab	Swab place in anaerobic transport media	2-4 working days	Ship ambient temperature

Shipping Requirements

- Notify the laboratory in advance (208-334-2235).
- Collect and transport clinical samples in sterile, leak-proof containers. *Exercise extreme caution in sample handling. Botulism toxin is an extremely potent neurotoxin.*
- Leave foods in their original containers, if possible, or place in sterile leak-proof, unbreakable containers. Place each container in a separate sealed plastic bag to prevent cross-contamination during shipping. Label completely.
- Ship by the most rapid means available.
- Store and ship specimens in anaerobic transport systems at room temperature. Store and ship all other specimens at 4°C.
- Freezing should be avoided as it decreases recovery of *C. botulinum* and may decrease toxin activity. However, if a delay of more than several days cannot be avoided, freeze samples for storage and ship frozen.

APPENDIX E. Specimen Requirements for *Francisella tularensis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Pulmonary	Sputum, throat swab, tracheal aspirates, bronchoalveolar wash, etc.	1 ml	
	Nasal swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Ulceroglandular	Ulcer scraping, biopsy, or swab (eye)	1 g 1 swab	Specimen from advancing edge of the lesion not central necrotic area, which is usually secondarily infected
Glandular	Lymph node aspirate, tissue	1 ml 1-5 g	
Septicemia	Blood culture	Refer to manufacturer's recommendation	Collect appropriate blood volume and number of sets per submitting lab's protocol. Collect prior to antibiotic use if possible. Most likely to be positive in later stages of disease.
Meningitis	CSF	1 ml	Centrifuge ≥1 ml of fluid
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be pre-approved by IBL.
Postmortem	Lymph, lung, liver, spleen tissue, bone marrow, CSF	1-5 g 1 ml	

APPENDIX F. Specimen Requirements for Acid Fast Bacilli (AFB)

Table 1. Requirements for Clinical Specimens

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
ABSCCESS CONTENTS, ASPIRATED FLUID (TRANSTRACHEAL ASPIRATES, WOUND MATERIAL)	Collect as much as possible in a sterile leak proof container	Cleanse skin with alcohol before aspirating sample.	1. Dry swab 2. Specimen with needle attached
BLOOD	10-ml SPS (yellow top) blood collection tube is preferred. Heparinized blood (green top) is also acceptable.	Disinfect site as for routine blood culture. Mix tube contents immediately after collection. SPS is the referred anticoagulant, as it enhances growth of mycobacteria.	1. Collected in EDTA (inhibits mycobacterial growth even in trace amounts) 2. Coagulated blood 3. <10 ml adult, <5 ml pediatric
BODY FLUIDS (PLEURAL, PERICARDIAL, PERITONEAL, ETC.)	Collect as much as possible (10 ml minimum) in a sterile leak proof container. Use an SPS blood collection tube for extremely blood specimens.	Disinfect site with alcohol if collecting by needle and syringe. Since many of these fluids may contain fibrinogen, it may be necessary to add anticoagulant (SPS or heparin) to collection containers.	<10 ml adult <1 ml pediatric
BONE	Submit in sterile container without fixative or preservative.		Specimen submitted in formalin
BONE MARROW	Collect as much as possible in SPS blood collection tube. 5-10 ml is optimal specimen.	Collect aseptically. Mix SPS tube contents immediately following collection.	Collected in EDTA (inhibits mycobacterial growth even in trace amounts).
BRONCHOALVEOLAR LAVAGE OR BRONCHIAL WASHINGS	≥5 ml in sterile leak proof container.	Avoid contaminating specimen with tap water. Saprophytic mycobacteria may produce false positive culture or smear results.	<5 ml adults <1 ml pediatric
BRONCHIAL BRUSHINGS	Sterile leak proof container		
CSF	≥2 ml in sterile leak proof container	Use maximum volume attainable, for maximum recovery. A high protein, lymphocytosis, and low glucose are typical of tuberculous meningitis.	<2 ml adults

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
GASTRIC ASPIRATE/LAVAGE FLUID	≥5-10 ml (50 ml is optimal) in sterile leak proof container. Early morning, fasting specimen is optimal in order to obtain sputum swallowed during sleep.	Collect on three consecutive mornings. Use sterile saline. Adjust to neutral pH with 100 mg of sodium carbonate if specimen cannot be processed within 4 hours of collection.	<ol style="list-style-type: none"> 1. Specimen that has not been neutralized 2. <5 ml 3. Multiple specimens taken from same day
SKIN LESION MATERIAL	Submit biopsy or aspirate specimen in sterile container without fixative or preservative.	For cutaneous ulcer, collect biopsy sample from periphery of lesion, or aspirate material from under margin of lesion. Notify laboratory if infection was acquired outside of U.S.	<ol style="list-style-type: none"> 1. Swab specimens
SPUTUM	5- 10 ml in sterile, leak proof container. Early morning specimen from deep, productive cough on at least 3 consecutive days. For follow-up of patients on therapy, collect at weekly intervals beginning 3 weeks after initiation of therapy.	Expectorated sputum: Instruct patient as to difference between saliva and sputum. Have patient rinse mouth with water before collecting sputum to minimize contamination with food, mouthwash, oral drugs, etc. Induced sputum: Use sterile hypertonic saline. Indicate on request if specimen is induced, as these watery specimens resemble saliva.	<ol style="list-style-type: none"> 1. 24 hour pooled specimens 2. Multiple specimens taken from same day 3. <5 ml of specimen 4. Expectorated sputum that resembles saliva
STOOL	≥1 g in sterile leak proof container		<ol style="list-style-type: none"> 1. Frozen specimens 2. Specimens in preservative
TISSUE BIOPSY (INCLUDING LYMPH NODES)	1 g of tissue, if possible, in sterile container without fixative or preservative	Collect aseptically, avoiding indigenous microbial flora. Select caseous portion if available. Do not immerse in saline or other fluid, or wrap in gauze.	<ol style="list-style-type: none"> 1. Specimen submitted in formalin 2. Freezing decreases yield

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	SPECIAL INSTRUCTIONS	REJECTION CRITERIA
URINE	Collect as much as possible (minimum, 40 ml) of first morning specimen (catheter, clean catch, midstream), in sterile leak proof container. For suprapubic tap, collect as much as possible.	Collect first morning specimen on 3 consecutive days. Organisms accumulate in bladder overnight, so first morning void provides best yield. Specimens collected at other times are dilute and are not optimal.	<ol style="list-style-type: none"> 24 hour pooled specimen Multiple specimens taken from same day <40 ml adult, <10 ml pediatric unless larger volume is not obtainable

Table 2. Requirements for Referred Cultures or “Culture by Courier”

SPECIMEN TYPE	SPECIMEN REQUIREMENTS	REJECTION CRITERIA
AGAR SLANT (LJ, 7H11, OR OTHER), PLATE (AFB POSITIVE)	Pure culture, visible growth. Screwcap tubes are preferred, but properly transported plates will be accepted if tubes are not available	<ol style="list-style-type: none"> Contaminated Liquefied Broken in transit No visible growth
LIQUID CULTURE SYSTEM BOTTLES (AFB POSITIVE)		<ol style="list-style-type: none"> Broken in transit
PRE_INOCULATED ESP BOTTLE, “CULTURE BY COURIER”	Call Mycobacteriology laboratory (208)334-2235 to make arrangements and for bottles and growth supplement	<ol style="list-style-type: none"> Broken in transit

APPENDIX G. Specimen Requirements for *Yersinia pestis*

Type of Infection	Specimen type	Minimum Volume	Collection Comments
Bubonic Plague	Lymph node (bubo) Aspirate	2 ml	
Septicemic Plague	Blood culture	Refer to manufacturer's recommendation	A series of 3 venipuncture specimens taken 15-30 minutes apart is most effective. Collect prior to antibiotic use if possible.
Pneumonic Plague	Sputum	1 ml	"Bloody" sputum is a hallmark of this disease.
	Tracheal aspirates, bronchoalveolar wash, etc.	1 ml	Bronchial or tracheal aspirates are the specimens of choice.
	Nasal/Throat swab	1 swab	For epidemiologic purposes only. Useful only within 24 hours of exposure.
Misc/Other	Whole blood	1 ml	Collect in EDTA, purple top tube. For molecular testing, must be preapproved by IBL.
	Serum/plasma	2 ml	Acute-phase specimen should be collected ASAP after onset of disease. Convalescent-phase specimen should be collected >14 days after the acute specimen. Sent to CDC for testing, must be preapproved by IBL.
Postmortem	Lymph and lung tissue, bone marrow	1-5 g 1 ml	

RABIES LABORATORY FORM

IDAHO DEPARTMENT OF AGRICULTURE

ATTN: SANDY KAUFMAN

2230 Old Penitentiary Road

Boise, ID 83712

(208) 332-8570

Date Submitted: _____

Carrier: Bus () UPS () FEDEX ()

Other: _____

(Notify virology lab prior to shipment (208) 334-2235 x229)

Date Rcvd: _____ Date Rptd: _____

(Lab Use Only)

VETERINARIAN:

(Name)

(Address)

(City, State, County)

Phone: _____

OWNER/SUBMITTER:

(Name)

(Address)

(City, State, County)

Phone: _____

BITING ANIMAL INFORMATION:

Species: _____ Age: _____ Sex: _____ Weight: _____

Vaccine Date: _____

EXPOSURE INFORMATION:

Date of exposure: _____

Person/s exposed: _____ Phone: _____

Animal exposed: _____ Species: _____ Number: _____

Vaccine status:_____

- | | | | |
|--|--|----------------------------------|---|
| <input type="checkbox"/> Provoked attack | <input type="checkbox"/> Bite | <input type="checkbox"/> Scratch | <input type="checkbox"/> Saliva contamination of: |
| <input type="checkbox"/> Unprovoked attack | <input type="checkbox"/> Handled Bat | | <input type="checkbox"/> Mucous membranes |
| | <input type="checkbox"/> Woke with bat in room | | <input type="checkbox"/> Open wounds |

Body Part exposed:_____

ADDITIONAL INFORMATION:_____

GENERAL INFORMATION: All Positive results will be immediately called to the appropriate people. In order to facilitate decisions regarding treatment it is critical that the specimen be tested as soon as possible.

In Idaho, nearly all cases of animal rabies have occurred in bats. Often when humans are infected with rabies from bats, no bite is known to have occurred. For this reason ***BAT EXPOSURES MUST BE GIVEN HIGHEST PRIORITY*** and even casual exposures to bats must be carefully evaluated.

PACKING INFORMATION: Only the head should be submitted if the animal weighs over 8 lbs. The head must be kept cold until testing. For animals weighing between 8-20 lbs, there will be a charge of \$50.00 to dispose of the carcass. No “whole” animals weighing over 20 lbs. will be accepted.

1. Double bag specimen in heavy plastic bags and wrap in absorbent material.
2. Place in a rigid insulated container with appropriate number of “blue ice” blocks to assure the package remains cool until it reaches the lab. Freezing does not invalidate the results but may delay testing.
3. Use the fastest shipping method available and send to Idaho Agriculture Lab, 2230 Old Penitentiary Road, Boise, ID 83712.

For added information call: IDAHO STATE LABORATORY (208) 334-2235
 IDAHO STATE AGRICULTURE LABORATORY (208) 332-8570
 IDAHO STATE EPIDEMIOLOGIST (208) 334-5941

**SPECIMEN SUBMISSION FORM FOR POTENTIAL CASES OF
AVIAN INFLUENZA**

State of Idaho Bureau of Laboratories
2220 Old Penitentiary Road
Boise, Idaho 83712-8299
(208) 334-2235

**District or State Health Department Epidemiologist must be consulted prior to
submission of specimens to the laboratory**

Epidemiologist Name _____ Phone # _____

Patient Name: _____

Patient Date of Birth: _____ Gender: Male Female

Patient's Residence: _____ (Town/County/State)

Date of Onset: _____

Specimens Being Submitted

I. Upper Respiratory Tract

- | | |
|---|--------------------------|
| <input type="checkbox"/> Nasopharyngeal wash/aspirate | Date of Collection _____ |
| <input type="checkbox"/> Nasopharyngeal/oropharyngeal swabs | Date of Collection _____ |

II. Lower Respiratory Tract

- | | |
|---|--------------------------|
| <input type="checkbox"/> Bronchoalveolar lavage (BAL),
tracheal aspirate, or pleural tap | Date of Collection _____ |
|---|--------------------------|

Submitter Name: _____

Address: _____

Phone: _____

Copy to: _____

Address: _____

STATE OF IDAHO BUREAU OF LABORATORIES
2220 OLD PENITENTIARY ROAD
BOISE, IDAHO 83712-8299
(208) 334-2235

PERTUSSIS REQUISITION

☐ Pertussis PCR

Patient Name _____ Date of Birth _____

Patient Identification Number _____ Sex: ☐ M ☐ F

City and County of Residence _____

Date of Collection _____ Source: ☐ NP swab ☐ NP aspirate ☐ Other _____

**THE PERTUSSIS PCR WILL ONLY BE PERFORMED IF THIS REQUISITION IS
COMPLETELY FILLED OUT.**

DFA result? ☐ Positive ☐ Negative ☐ Not done ☐ Pending

Culture performed? ☐ Yes ☐ No

Symptoms: ☐ Cough illness \geq 7 days ☐ Duration of Cough: _____
☐ Paroxysmal cough
☐ Inspiratory "whoop"
☐ Post-tussive vomiting
☐ Apnea (in children)

Is patient currently on antibiotics? ☐ Yes ☐ No Antibiotic: _____
Duration: _____

Is this part of a suspected outbreak? ☐ Yes ☐ No

Send report to:

Facility _____

Attention _____

Address _____

City/State/Zip _____

Phone _____

Send copy to:

Facility _____

Attention _____

Address _____

City/State/Zip _____

Phone _____

Analytical Methods in Clinical Chemistry

Pathogen or Test Type	Test or Method	Sample Required	Minimum Volume Required	Special Collection Procedures	Turn-around Time
Toxic Elements (Antimony, Barium, Beryllium, Cadmium, Cesium, Cobalt, Lead, Molybdenum, Platinum, Thallium, Tungsten, and Uranium)	Inductively Coupled Plasma-Mass Spectrometry	Urine	2 mL (optimal: 4-7 mL)	Plastic urine cup with screw cap. Short-term storage at 2-4 °C. Long-term storage at ≤ -20 °C. Specimen should be transported frozen (packed in dry ice when possible).*	15-36 hours
Arsenic and Selenium	Inductively Coupled Plasma-Mass Spectrometry	Urine	2 mL (optimal: 4-7 mL)	Plastic urine cup with screw cap. Short-term storage at 2-4 °C. Long-term storage at ≤ -20 °C. Specimen should be transported frozen (packed in dry ice when possible).*	15-36 hours
Cadmium, Lead, and Mercury	Inductively Coupled Plasma-Mass Spectrometry	Whole Blood	0.25 mL (optimal: 1-2 mL)	Evacuated blood tube with EDTA anticoagulant (tube certified for heavy metal/trace element analysis is highly recommended). Store and transport specimen at 5 ± 3 °C.*	10-36 hours
Cyanide	Headspace Gas Chromatography with Mass Selective Detection	Whole Blood	0.75 mL (optimal: at least 5 mL)	Evacuated blood tube containing EDTA or heparin anticoagulant. Headspace in the vacutainer should be minimized. Store and transport specimen at 5 ± 3 °C.*	2-36 hours
Organophosphate Nerve Agent Metabolites (GB acid, GD acid, GF acid, rVX acid, and VX acid)	Solid Phase Microextraction – Gas Chromatography with Mass Selective Detection	Urine	1.5 mL (optimal: 5 mL)	Plastic urine cup with screw cap. Samples should be frozen at -70 ± 5 °C as soon as possible and stored on dry ice for shipping.*	15-36 hours

* Note: For each lot number of containers used during specimen collection, please provide two empty unopened containers to serve as blanks for measuring background contamination. Although blanks do not have to be labeled, please secure their container tops in the same fashion as specimen blood tubes and urine cups.

Analytical Methods in Clinical Chemistry (Continued)

Pathogen or Test Type	Test or Method	Sample Required	Minimum Volume Required	Special Collection Procedures	Turn-around Time
CDC Rapid Toxic Screen – tests for 150 chemical agents and metabolites	Available for request following chemical terrorism events. Multi-test process conducted at CDC, Atlanta GA.	Whole Blood and Urine	Call State Comm and request IBL assistance to initiate LRN response	CDC guidance for collecting and shipping specimens from people potentially exposed to chemical terrorism agents is available on the following pages.	Results in less than 36 hours after specimen receipt by CDC in Atlanta, GA

APPENDIX A. Overview of the Chemical-Laboratory Response Network

The mission of the Laboratory Response Network (LRN; <http://www.bt.cdc.gov/lrn>) is to integrate clinical laboratory capabilities across the country in order to quickly respond to public health threats and emergencies. Idaho's Sentinel Laboratories can initiate a LRN response by contacting the Idaho Bureau of Laboratories (IBL) through Idaho State Communications (StateComm; 1-800-632-8000).

Following acts of chemical terrorism, affected Sentinel Laboratories are expected to collect blood and urine specimens according to Centers for Disease Control and Prevention (CDC) guidance (Appendix B). CDC will accept specimens from up to 40 exposed and symptomatic patients for analysis by the Rapid Toxic Screen (RTS). This process is used to determine levels of exposure for 150 chemical agents and metabolites. CDC may also deploy the Rapid Response Team (RRT) to assist with specimen packaging and transport. If the RRT is not available for deployment, Sentinel Laboratories must be prepared to ship specimens to IBL or CDC. Appendix C includes example forms that may be used when transporting specimens. Sentinel Laboratories are encouraged to develop their own forms and protocols that are compatible with CDC instructions.

RTS test results will be reported to Idaho in less than 36 hours after sample receipt in Atlanta, GA. These results will determine what testing will follow. If IBL has demonstrated proficiency in the required LRN methods, IBL will test remaining specimens. If IBL does not have the analytical capability or is overwhelmed by large numbers of samples, specimens may be forwarded to CDC or other state laboratories in the LRN. IBL has surge RTS sampling supplies for more than 1,000 patients and secure storage capacity for RTS specimens from more than 2,000 patients.

If you have any questions or concerns about the anticipated LRN specimen flow following a chemical incident, please contact Ian Elder, Ph.D., Chemical Threat Laboratory Coordinator at IBL: (208) 334-2235 ext 269 or elderi@dhw.idaho.gov.

APPENDIX B. Clinical Specimen Requirements for Chemical Terrorism Response



Centers for Disease Control and Prevention Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents

SECTION ONE: COLLECTING AND LABELING SPECIMENS

Required Specimens

Unless otherwise directed, collect the following specimens from each person who may have been exposed:

Whole blood

- Collect blood specimens from adults only unless you receive specific instruction from CDC to collect blood from pediatric patients.
- Collect a minimum of 12 mL of blood.
- Use three 4-mL or larger vacuum-fill only (unopened), non-gel, purple-top (EDTA) tubes; use four tubes if using 3-mL tubes.
- Using indelible ink, mark each purple-top tube of blood *in the order collected* (e.g., # 1, # 2, # 3, # 4 [if using 3-mL tubes]).
- In addition, collect another specimen using one 3-mL or larger, vacuum-fill only (unopened), non-gel, green- or gray-top tube. Allow the tube to fill to its stated capacity.

Urine

- Collect at least 25-50 mL from potentially exposed adults and children.
- Use a screw-cap plastic container; do not overfill.
- Freeze specimen as soon as possible (-70°C or dry ice preferred).
- If other than “clean catch”, note method of collection on the specimen cup (e.g., obtained by catheterization).

Blanks

For each lot number of tubes and urine cups used for collection, provide the following to be used as blanks for measuring background contamination:

- Two (2) empty, unopened purple-top tubes.
- Two (2) empty, unopened green- or gray-top tubes.
- Two (2) empty, unopened urine cups.

Labeling Specimens

- Label specimens with labels generated by your facility and follow your facility's procedures for proper specimen labeling.
- In addition to unique patient identifiers (e.g., medical records number, specimen identification number) labels should convey the collector's initials, date and time of collection so that law enforcement officials may trace the specimen to the collector should investigations lead to legal action and the collector has to testify that he or she collected the specimen.
- If you use bar-coded labels, place the labels on blood tubes and urine cups so that when these containers are upright, the bar code looks like a ladder.
- Maintain a list of names with corresponding specimen identification numbers at the collection site so that results can be reported to patients. It is recommended that you record additional data for use in the interpretation of results. Additional data may include: time of potential exposure, method of urine collection if other than "clean-catch", indication if sample was collected post-mortem, and antidotes administered prior to sample collection.
- Information provided on labels and lists may prove helpful in correlating the results obtained from CDC's Rapid Toxic Screen and subsequent analysis with the people from whom the specimens were collected.



Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents

SECTION TWO: PACKAGING SPECIMENS

Packaging consists of the following components: primary receptacles (blood tubes or urine cups), secondary packaging (materials used to protect primary receptacles), and outer packaging (polystyrene foam-insulated, corrugated fiberboard shipper).

Secondary Packaging for Blood Tubes

- To facilitate processing, package all blood tubes from the same patient together.
- Place absorbent material between the blood tubes and the first layer of secondary packaging. Use enough absorbent material to absorb the entire contents of the blood tubes.
- Separate each tube of blood collected from other tubes, or wrap tubes to prevent tube-to-tube contact. Regardless of the method used, the first layer of secondary packaging must be secured with one continuous strip of evidence tape and initialed half on the tape and half on the first layer of secondary packaging by the person making the seal. Examples of some ways to do this are to—
 - Pack blood tubes in a gridded box lined with absorbent material. Seal the top half of the box to the bottom half with one continuous piece of evidence tape and write your initials half on the tape and half on the box.
 - Pack a sealable polystyrene foam container or blood tube shipment sleeve and transport tube with individually wrapped tubes. Seal the polystyrene foam container or transport tube with one continuous piece of evidence tape and write your initials half on the tape and half on the container.
- Wrap and seal the first layer of secondary packaging (e.g., gridded box) with absorbent material.
- Seal one wrapped gridded box or alternative container inside a clear, leak-proof biohazard polybag equivalent to Saf-T-Pak product STP-701, STP-711 or STP-731.
- Place this bag inside a white Tyvek® outer envelope (or equivalent) and seal the opening with a continuous strip of evidence tape initialed half on the packaging and half on the evidence tape by the individual making the seal.
- According to 49 CFR 173.199(b), if specimens are to be transported by air, either the primary receptacle or the secondary packaging used must be capable of withstanding, without leaking, an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar, 14 psi). Verify in advance that the manufacturer of either the blood tube or secondary packaging used in your facility is in compliance with the pressure differential requirement.

Outer Packaging for Blood Tubes

- Use polystyrene foam-insulated, corrugated fiberboard shipper (may be available from your transfusion service or send-outs department).
- For cushioning, place additional absorbent material in the bottom of the shipper.
- Add a single layer of refrigerator packs on top of absorbent material.
- Place the packaged specimens on top of the refrigerator packs.
- Use additional cushioning material to minimize shifting while the shipper is in transit.
- Place additional refrigerator packs on top of the secondary packaging to maintain a shipping temperature of 1° C-10° C for the duration of transit.
- Place blood shipping manifest in a sealable plastic bag and put on top of packs inside the shipper.
- Keep chain-of-custody documents for your files.
- Place lid on shipper and secure with filamentous shipping tape.
- Place your return address in the upper left-hand corner of the shipper top and put CDC's receiving address in center.
- Affix labels and markings adjacent to the shipper's/consignee's address that appears on the shipper.
- Place the UN 3373 label and the words "Biological Substance, Category B" adjacent to the label on the front of the shipper.

Secondary Packaging for Urine Cups

- Separate each urine cup from other urine cups, or wrap individual urine cups to prevent contact between urine cups. Regardless of the method used, the first layer of secondary packaging must be secured with one continuous strip of evidence tape and initialed half on the tape and half on the first layer of secondary packaging by the person making the seal. Examples of some ways to do this are to—
 - Pack urine cups in a gridded box lined with absorbent material. Seal the top half of the box to the bottom half with one continuous piece of evidence tape and write your initials half on the tape and half on the box.
 - Seal individually wrapped urine cups inside a clear, leak-proof biohazard polybag equivalent to Saf-T-Pak product STP-701, STP-711 or STP-731. Secure the closure of the bag with one continuous strip of evidence tape initialed half on the tape and half on the bag by the individual making the seal.
- Place urine cups, boxed or individually wrapped and secured properly with evidence tape, in the next layer of secondary packaging. An example of acceptable material is the Saf-T-Pak Disposable 2-Part Pressure Vessel system or its equivalent.
- Secondary packaging must have its closure secured with a single strip of evidence tape initialed half on the packaging and half on the evidence tape by the person making the seal.

Outer Packaging for Urine Cups

- Use polystyrene foam-insulated, corrugated fiberboard shipper (may be available from your transfusion service or send-outs department).
- For cushioning, place additional absorbent material in the bottom of the shipper.
- Place a layer of dry ice on top of the absorbent material. Do not use flakes or large chunks of dry ice for shipment because large chunks have the potential for shattering urine cups during transport.
- Ensure that specimens will remain frozen or will freeze during transport.
- Place packaged urine cups in the shipper.
- Use additional absorbent or cushioning material between wrapped urine cups to minimize shifting while shipper is in transit.
- Place an additional layer of dry ice on top of samples.
- Place the urine shipping manifest in a sealable plastic bag and put on top of dry ice inside the shipper.
- Keep chain-of-custody documents for your files.
- Place lid on shipper and secure with filamentous shipping tape.
- Place your return address in the upper left-hand corner of the shipper top and put CDC's receiving address in center.
- Place the UN 3373 label and the words "Biological Substance, Category B" adjacent to the label on the front of the shipper.
- Place a Class 9/UN 1845 hazard label on the same side of the shipper as the UN 3373 marking.
- If the proper shipping name, (either dry ice or carbon dioxide, solid) and Class 9/UN 1845 is not preprinted on the hazard label, add it in an area adjacent to the label.
- Note the weight of dry ice (in kg) on the preprinted area of the hazard label, or place that information adjacent to the Class 9/UN 1845 hazard label.
- Orientation arrows are not required on a shipper containing "Biological substance, category B." If you use arrows, be sure to orient the inner packaging so that closures are aligned with the arrows.
- If the shipper will be transported by a commercial air carrier, complete an airway bill. On the airway bill, note the proper shipping name and UN number for each hazardous material and identify a person responsible for the shipper per IATA packing instruction 650.



Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents

SECTION THREE: SHIPPING SPECIMENS

Follow the guidance provided in your state's chemical-terrorism comprehensive response plan. If you are directed to ship the specimens to CDC, please ship the specimens to the following address:

**Centers for Disease Control and Prevention
Attn: Lt. Ernest McGahee
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341
(770) 488-7579**

Preparing Documentation

- Since blood tubes and urine cups cannot be shipped together in the same package, prepare a separate shipping manifest for each.
- Note on shipping manifest if urine sample is collected by means other than clean catch (e.g., catheterization).
- Place each shipping manifest (with specimen identification numbers) in a plastic zippered bag on top of the specimens before closing the lid of the polystyrene foam-insulated, corrugated fiberboard shipper.
- Do not transport chain-of-custody forms with specimens. Each entity or organization handling the specimens is responsible for the specimens only during the time that it has control of the specimens.
- Each entity or organization receiving the specimens must sign-off on the chain-of-custody form of the entity or organization relinquishing the specimens to close that chain. Electronic procedures such as electronic chain-of-custody and barcode readers will expedite this process.
- When receiving specimens, each new entity or organization must begin its own chain of custody. The entity or organization relinquishing the specimens must sign its chain of custody to close the chain and indicate that they have transferred the specimens.

Note: When the person relinquishing the specimens (relinquisher) and the person receiving the specimens (receiver) are not together at the time of specimen transfer, the relinquisher must document on its chain-of-custody form that the receiver is the express courier (e.g., FedEx, Delta Dash, DHL, UPS) and must document the shipment tracking number or have the person transporting the specimens sign the chain-of-custody to indicate that he or she has taken control of the specimens. Likewise, when receivers get the specimens, they will document on their chain-of-custody form that the relinquisher is the express courier (and provide the tracking number) or have the person transporting the specimens sign the chain-of-custody form.

Questions

If you have any questions or problems with specimen packaging or shipment, please send an e-mail to or call one of the following contacts:

Centers for Disease Control and Prevention, National Center for Environmental Health, Division of Laboratory Sciences

- **Philip Holt, Incident Response Laboratory Coordinator**
E-mail: PHolt@cdc.gov; work phone: (770) 488-7532 / mobile phone: (678) 525-2683
- **Cecelia Sanders, Chemical Emergency Response Team Leader**
E-mail: CSanders@cdc.gov; work phone: (770) 488-4034 / mobile phone: (770) 294-4124

CDC Specimen-Collection Protocol for a Chemical-Exposure Event

For detailed instructions see CDC's *Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents*.

Collect blood and urine samples for each person involved in the chemical-exposure event.

Note: For children, collect only urine samples unless otherwise directed by CDC.

Blood-Sample Collection

For each person, collect blood in glass or plastic tubes in the following order: 1st: collect specimens in three (3) EDTA (purple-top) 4 mL or larger plastic or glass tubes; 2nd: collect another specimen in one (1) gray- or green-top tube. Collect the specimens by following the steps below:

- 1 Collect a minimum of 12 mL of blood in three (3) 4 mL or larger glass or plastic tubes. If using 3 mL tubes, use four tubes.



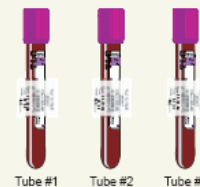
Do not use gel separators.

- 2 Mix contents of tubes by inverting them 5 or 6 times.



Label tubes in order of collection. #1, #2, #3

- 3 Place bar-coded labels on each tube, so that when the tubes are upright, the barcode looks like a ladder.



Store samples at 1°C to 10°C.
Do not freeze.

- 4 After collecting samples in the purple-top tubes, collect one (1) sample in a gray- or green-top tube (gray-top tube shown). Allow the tube to fill to its stated capacity.



Do not use gel separators.

- 5 Mix contents of the tube by inverting it 5 or 6 times.



- 6 Place bar-coded labels on the tube, so that when the tube is upright, the barcode looks like a ladder.



Store samples at 1°C to 10°C.
Do not freeze.

Urine-Sample Collection

For each person, collect 25 mL- 50 mL of urine in a screw-cap urine cup.



Label the urine cup with the appropriate bar-coded label as shown. Indicate on the cup how the sample was collected if the method was other than "clean catch" (i.e., catheterization).

Freeze samples (optimally at -70°C).



Place bar-coded labels on all cups so that when the cup is upright, the barcode looks like a ladder.

11/2006



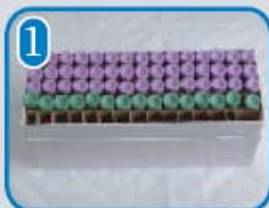
Department of Health and Human Services
Centers for Disease Control and Prevention



Instructions for Shipping Blood Specimens to CDC after a Chemical-Exposure Event

Guidance in Accordance with Packaging Instructions International Air Transport Authority (IATA) 650 Biological Substance Category B

For detailed instructions see CDC's *Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents*.



Place purple- and gray- or green top tubes by patient number into gridded-type box lined with an absorbent pad. If using an alternative packaging method, pack all tubes from the same patient together while preventing tube-to-tube contact.



Seal gridded box or alternative secondary container with one continuous piece of evidence tape. The individual making the seal must initial half on the tape and half on the packaging.



Wrap gridded box in absorbent pad and tape to seal. Seal gridded box or alternative container inside a Saf-T-Pak clear inner, leak-proof polybag (or equivalent).



Place the sealed Saf-T-Pak inner leak-proof polybag (or equivalent) inside a white Tyvek® outer envelope (or equivalent). **Note: If primary receptacles do not meet the internal pressure requirement of 95 kPa, use compliant secondary packaging materials.**



Seal the opening of this envelope with a continuous piece of evidence tape. Write initials half on the evidence tape and half on the envelope.



Use polystyrene foam-insulated, corrugated fiberboard shipper to ship boxes to CDC. Place absorbent material in the bottom of the shipper.



Place refrigerator packs in a single layer on top of the absorbent material.



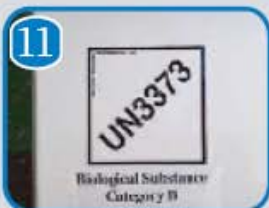
Place the packaged specimens in the shipper. Use cushioning material to minimize shifting while box is in transit. Place additional refrigerator packs on top of samples.



Place the blood shipping manifest in a sealable plastic bag and put on top of the sample boxes inside the shipper. Keep your chain-of-custody documents for your files. Place lid on the shipper.



Secure the shipper lid with filamentous shipping tape. Place your return address in the upper left-hand corner of the shipper top and put the CDC Laboratory receiving address in the center.



Add the UN 3373 label and the words "Biological Substance, Category B" on the front of the shipper. UN 3373 is the code identifying the shipper's contents as "Biological Substance, Category B."



Send shipment via FedEx to:
Centers for Disease Control and Prevention
Attn: Lt. Ernest McGahee
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341
(770) 488-7579

For questions concerning this process, please contact:

Centers for Disease Control and Prevention
Attn: Cecelia Sanders, Chemical Emergency Response Team Leader
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341

Office: (770) 488-4034
Cell: (770) 294-4124

Department of Health and Human Services
Centers for Disease Control and Prevention



Instructions for Shipping Urine Specimens to CDC after a Chemical-Exposure Event

Guidance in Accordance with Packaging Instructions International Air Transport Authority (IATA) 650 Biological Substance Category B

For detailed instructions, see CDC's *Shipping Instructions for Specimens Collected from People Who May Have Been Exposed to Chemical-Terrorism Agents*.



Use a gridded box or individually wrapped cups sealed with evidence tape to separate urine cups. Place absorbent material in the bottom of the box and insert the cups.



Use one continuous piece of evidence tape to seal the gridded box or Saf-T-Pak inner leak-proof polybag (or equivalent) containing wrapped urine cup(s). Write initials half on the evidence tape and half on the box or bag.



Wrap the gridded box with absorbent material and secure with tape. Seal the box inside a Saf-T-Pak inner leak-proof polybag (or equivalent).



Place the sealed Saf-T-Pak inner leak-proof polybag (or equivalent) inside a white Tyvek® outer envelope (or equivalent). **Note:** If primary receptacles do not meet the internal pressure requirement of 95 kPa, use compliant secondary packaging materials.



Seal the opening of this envelope with a continuous piece of evidence tape. Write initials half on the evidence tape and half on the envelope.



Use polystyrene foam-insulated, corrugated fiberboard shipper to ship boxes to CDC. Place absorbent pad in the bottom of the shipper.



Place a layer of dry ice in the bottom of the shipper on top of the absorbent material. **DO NOT** use large chunks or flakes of dry ice.



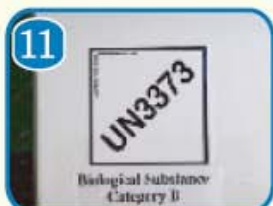
Place the packaged urine cups in the shipper. Use absorbent material or cushioning material to minimize shifting while box is in transit. Place additional dry ice on top of samples.



Place the urine shipping manifest in a sealable plastic bag and put on top of the sample boxes inside the shipper. **Keep your chain-of-custody documents for your files.** Place lid on the shipper.



Secure the outer container lid with filamentous shipping tape. Place your return address in the upper left-hand corner of the shipper top and put the CDC Laboratory receiving address in the center.



Add the UN 3373 label and the words "Biological Substance Category B" on the front of the shipper. UN 3373 is the code identifying the shipper's contents as "Biological Substance, Category B."



Place a Class 9/UN 1845 label on the front of the shipper. This label for dry ice **MUST** indicate the weight of dry ice (in kg) in the shipper and the proper name (either dry ice or carbon dioxide, solid).



Send shipment via FedEx to:
Centers for Disease Control and Prevention
Attn: Lt. Ernest McGahee
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341
(770) 488-7579

For questions concerning this process, please contact:

Centers for Disease Control and Prevention
Attn: Cecelia Sanders, Chemical Emergency Response Team Leader
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341
Office: (770) 488-4034
Cell: (770) 294-4124



APPENDIX C. Example Chemical Terrorism Specimen Transport Forms

Page ____ of ____

CENTERS FOR DISEASE CONTROL AND PREVENTION CHEMICAL TERRORISM BLOOD SPECIMEN COLLECTION AND SHIPPING MANIFEST

Note: Blood tubes and urine cups **cannot** be shipped together in the same package, prepare a separate shipping manifest for each. Place each shipping manifest (with specimen identification numbers) in a plastic zippered bag on top of the specimens before closing the lid of the polystyrene foam-insulated, corrugated fiberboard shipper.

Date Shipped: _____

Shipped By: _____

Name

Agency

Contact Telephone: _____

Signature: _____

Date Received: _____

Received By: _____

Signature: _____

BLOOD

Total Number of Specimens in this Container: _____

Total Number of **Blank Tubes** in this Container: _____

Purple Top Tubes: _____

Blank Purple Top Tubes: _____

Green- or Gray-top tubes: _____

Blank Green- or Gray-top tubes: _____

Please include two (2) empty, unopened purple-top tubes and two (2) empty, unopened green- or gray-top tubes from each lot number collected for background contamination measurement.

Place a √ in each box for samples shipped. Place an X in each box for samples not shipped. Please indicate the size of the tube collected in the comments field. Collect a minimum of 12 mL of blood. Use three 4-mL or larger vacuum-fill (unopened), non-gel, purple-top (EDTA) tubes; use four tubes if using 3-mL tubes.

PT = Purple-top tube

GT = Green- or Gray-top tube

Patient/Victim ID Label	PT 1	PT 2	PT 3	GT 1	Comments

CONTINUE ON NEXT PAGE

SHIPPING ADDRESS:

Centers for Disease Control and Prevention
Attn: Lt. Ernest McGahee
4770 Buford Hwy, NE
Building 110 Loading Dock
Atlanta, GA 30341
(770) 488-7579

**CENTERS FOR DISEASE CONTROL AND PREVENTION
CHEMICAL TERRORISM BLOOD SPECIMEN COLLECTION AND SHIPPING MANIFEST**

CONTINUED FROM PREVIOUS PAGE

Patient/Victim ID Label	PT 1	PT 2	PT 3	GT 1	Comments

USE ADDITIONAL COPIES OF THIS PAGE IF NECESSARY

**CENTERS FOR DISEASE CONTROL AND PREVENTION
CHEMICAL TERRORISM URINE SPECIMEN COLLECTION AND SHIPPING MANIFEST**

Note: Blood tubes and urine cups **cannot** be shipped together in the same package, prepare a separate shipping manifest for each. Place each shipping manifest (with specimen identification numbers) in a plastic zippered bag on top of the specimens before closing the lid of the polystyrene foam-insulated, corrugated fiberboard shipper.

Date Shipped: _____

Shipped By: _____

Name

Agency

Contact Telephone: _____

Signature: _____

Date Received: _____

Received By: _____

Signature: _____

URINETotal Number of Specimens in this Container: ____ | Total Number of **Blank Urine Cups** this Container: ____

Please include two (2) empty, unopened urine cups from each lot number collected for background contamination measurement.

COMMENTS: _____

CONTINUE ON NEXT PAGE**SHIPPING ADDRESS:**

Centers for Disease Control and Prevention
Attn: Lt. Ernest McGahee
4770 Buford Hwy.
Building 110 Loading Dock
Atlanta, GA 30341
(770) 488-7579

**CENTERS FOR DISEASE CONTROL AND PREVENTION
CHEMICAL TERRORISM URINE SPECIMEN COLLECTION AND SHIPPING MANIFEST**

CONTINUED FROM PREVIOUS PAGE

PLEASE INDICATE THE AMOUNT OF URINE COLLECTED IN THE URINE CUP (UC) COLUMN.		
Patient/Victim ID Label	UC (Amount)	Comments
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>
		<hr/> <hr/> <hr/>

USE ADDITIONAL COPIES OF THIS PAGE IF NECESSARY

Appendix D. Clinical Chemistry Laboratory Submission Forms

MULTIPLE TOXIC ELEMENTS IN URINE ANALYSIS REQUEST FORM

COMPLETE ALL INFORMATION

Submitter Name:		Submitter Organization:	
Mailing Address:			
City:		State:	Zip:
Phone:		E-mail Address:	
Secure Fax Number:			

State of Idaho
Bureau of Laboratories
2220 Old Penitentiary Rd.
Boise, ID 83712
208-334-2235



Customer Specimen ID	Collected by	Collection Date	Collection Time	Gender	Date of Birth	Known Chem Exposure?	Symptomatic Chem Exposure?	Laboratory Use Only		
								Lab Sample #	Bottle Type	Preservative

Special Instructions: _____

General Information

This multi-element method is used to measure the following 12 elements in urine: beryllium, cobalt, molybdenum, cadmium, antimony, cesium, barium, tungsten, platinum, thallium, lead, and uranium. Optimal urine specimen volume is 4-7 mL. Minimal amount required is 2 mL. Acceptable specimen containers are plastic with screw cap (do not overfill). Include two blank (empty) containers per lot of specimen containers submitted. Handle and store blank containers identical to specimens for testing. Short-term storage at 2-4°C. Long-term storage and transport at ≤ -20 °C. Package for transport according to IATA regulations.

LABORATORY USE ONLY

Temperature: _____ Shipper: _____ Number of Bottles / Sample: _____ Number of Samples / Order: _____ Lab Order ID: _____
Date Received: _____ Time Received: _____ Received By: _____ Revised 11/28/07

ARSENIC AND SELENIUM IN URINE ANALYSIS REQUEST FORM

COMPLETE ALL INFORMATION

Submitter Name:		Submitter Organization:	
Mailing Address:			
City:		State:	Zip:
Phone:		E-mail Address:	
Secure Fax Number:			

State of Idaho
Bureau of Laboratories
2220 Old Penitentiary Rd.
Boise, ID 83712
208-334-2235



Customer Specimen ID	Collected by	Collection Date	Collection Time	Gender	Date of Birth	Known Chem Exposure?	Symptomatic Chem Exposure?	Laboratory Use Only		
								Lab Sample #	Bottle Type	Preservative

Special Instructions: _____

General Information

Optimal urine specimen volume is 4-7 mL. Minimal amount required is 2 mL. Acceptable specimen containers are plastic with screw cap (do not overfill). Include two blank (empty) containers per lot of specimen containers submitted. Handle and store blank containers identical to specimens for testing. Short-term storage at 2-4 °C. Long-term storage and transport at ≤ -20 °C. Package for transport according to IATA regulations.

LABORATORY USE ONLY

Temperature: _____ Shipper: _____ Number of Bottles / Sample: _____ Number of Samples / Order: _____ Lab Order ID: _____

Date Received: _____ Time Received: _____ Received By: _____ Revised 11/28/07

MERCURY, LEAD AND CADMIUM IN WHOLE BLOOD ANALYSIS REQUEST FORM

COMPLETE ALL INFORMATION

Submitter Name:		Submitter Organization:	
Mailing Address:			
City:		State:	Zip:
Phone:		E-mail Address:	
Secure Fax Number:			

State of Idaho
Bureau of Laboratories
2220 Old Penitentiary Rd.
Boise, ID 83712
208-334-2235



Customer Specimen ID	Collected by	Collection Date	Collection Time	Gender	Date of Birth	Tobacco Use Frequency	Known Chem Exposure?	Symptomatic Chem Exposure?	Laboratory Use Only		
									Lab Sample #	Bottle Type	Preservative

Special Instructions: _____

General Information

Optimal amount of specimen is 1-2 mL, minimum is 0.25 mL. Specimens must be collected in evacuated blood tubes with EDTA anticoagulant (tubes with royal blue closures, certified for heavy metal/trace element analysis, are highly recommended). Draw the blood through a stainless steel needle. If more than one evacuated tube of blood is to be drawn from an individual, the trace metals tube should be drawn second or later. Submit two blank (empty) containers per lot of specimen containers. Handle and store blank containers identical to specimens for testing. Store and transport specimens at 5 ± 3 °C. If shipping specimen to IBL, package for transport according to IATA regulations.

LABORATORY USE ONLY

Temperature: _____ Shipper: _____ Number of Bottles / Sample: _____ Number of Samples / Order: _____ Lab Order ID: _____

Date Received: _____ Time Received: _____ Received By: _____ Revised 11/28/07

CYANIDE IN WHOLE BLOOD ANALYSIS REQUEST FORM

COMPLETE ALL INFORMATION

Submitter Name:		Submitter Organization:	
Mailing Address:			
City:		State:	Zip:
Phone:		E-mail Address:	
Secure Fax Number:			

State of Idaho
Bureau of Laboratories
2220 Old Penitentiary Rd.
Boise, ID 83712
208-334-2235



Customer Specimen ID	Collected by	Collection Date	Collection Time	Gender	Date of Birth	Tobacco Use Frequency	Known Chem Exposure?	Symptomatic Chem Exposure?	Laboratory Use Only		
									Lab Sample #	Bottle Type	Preservative

Special Instructions: _____

General Information

Optimal amount of specimen is at least 5 mL, minimum is 0.75 mL. Specimens must be collected in evacuated blood tubes containing EDTA or heparin anticoagulant. Headspace in the vacutainers should be minimized. Include two blank (empty) containers per lot of specimen containers submitted. Handle and store blank containers identical to specimens for testing. Store and transport specimens at $5 \pm 3^{\circ}\text{C}$. Package for transport according to IATA regulations.

LABORATORY USE ONLY

Temperature: _____ Shipper: _____ Number of Bottles / Sample: _____ Number of Samples / Order: _____ Lab Order ID: _____

Date Received: _____ Time Received: _____ Received By: _____ Revised 8/14/08

NERVE AGENT METABOLITES IN URINE ANALYSIS REQUEST FORM

COMPLETE ALL INFORMATION

Submitter Name:		Submitter Organization:	
Mailing Address:			
City:		State:	Zip:
Phone:		E-mail Address:	
Secure Fax Number:			

State of Idaho
Bureau of Laboratories
2220 Old Penitentiary Rd.
Boise, ID 83712
208-334-2235



Customer Specimen ID	Collected by	Collection Date	Collection Time	Gender	Date of Birth	Known Chem Exposure?	Symptomatic Chem Exposure?	Laboratory Use Only		
								Lab Sample #	Bottle Type	Preservative

Special Instructions: _____

General Information

This method is used to measure the metabolites of the following organophosphate nerve agents in urine: VX, RVX (Russian VX), GB (sarin), GD (soman), and GF (cyclohexylsarin). The optimal amount of specimen is at least 5 mL. The minimal amount required is 1.5 mL. Acceptable specimen containers are plastic with screw cap (do not overfill). Samples should be frozen at $-70 \pm 5^\circ\text{C}$ as soon as possible and shipped on dry ice. Include two blank (empty) containers per lot of specimen containers submitted. Handle and store blank containers identical to specimens for testing. Package for transport according to IATA regulations.

LABORATORY USE ONLY

Temperature: _____ Shipper: _____ Number of Bottles / Sample: _____ Number of Samples / Order: _____ Lab Order ID: _____
Date Received: _____ Time Received: _____ Received By: _____ Revised 11/28/07

Environmental Microbiology Sampling

Food

Sample Matrix	Tests or Methods	Refs.	Sample Required	Minimum weight Required /Test	Special Collection Procedures	Holding Time
<i>Bacillus cereus</i> ,	FOBAC	BAM	Food	25 g		NA
<i>Campylobacter</i> culture,	FOCPY	BAM	Food	25 g	Contact lab	NA
<i>Clostridium perfringens</i> ,	FOANP	BAM	Food	25 g	Contact lab	NA
<i>E. coli</i>	FOEC	BAM	Food	25 g		NA
<i>E. coli</i> O157:H7	FO157	BAM	Food	25 g		NA
<i>Enterobacter sakazaii</i>	FOES	BAM	Food	25 g	Contact lab	NA
Enterotoxin detection, <i>Bacillus cereus</i>	TOXBC	OXOID	Food	25 g		NA
Enterotoxin detection, Shiga-like toxins, PCR	FOPCR	PCR*	Contact lab	Contact lab	Contact lab	NA
Enterotoxin detection, Shiga-like toxins	TOXEC	Meridian	Contact lab	Contact lab	Contact lab	NA
Fecal coliforms,	FOFC	BAM	Food	25 g		NA
Filth in food or beverages	FOFLT	BAM	Contact lab	Contact lab	Contact lab	NA
Food standard plate count	FOSPC	BAM	Food	25 g		NA
Food Utensil/Surface Counts	FOHPC	BAM	Swab	Trans media		NA
Salmonella/Shigella	FOSAL	BAM	Food	25 g		NA
<i>Staphylococcus aureus</i>	FOSC	BAM	Food	25 g		NA
Total coliforms, f	FOTC	BAM	Food	25 g		NA
Yersinia species	FOYES	BAM	Food	25 g	Contact Lab	
Vibrio species	FOVIB	BAM	Contact lab	Contact lab	Contact lab	NA
Yeast or Mold	FOYM	BAM	Food	25 g		NA

Samples associated with an outbreak or complaint are routinely received from health district environmentalists.

1. Sample should be submitted in the original container. If the outbreak involves commercially prepared food also submit an unopened container of the same lot as the food in question.
2. Samples of larger volumes of foods should be collected using aseptic technique. Clean plastic bags may be used in extraordinary circumstances.
3. Samples should be shipped frozen and shipped in such a way they remain so.
4. Fill in the submission form completely, providing information regarding symptoms, onset and duration.

Drinking Water

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total coliform, MMO-MUG	9223B-PA	SM	Water	120 mL		30 hr
<i>E. coli</i> , MUG	9223B-PA	SM	Water	120 mL		30 hr
Total Coliform by Quantitray (Modified MPN)	9223B-QT	SM	Water	120 mL		30 hr
<i>E. coli</i> by Quantitray (Modified MPN)	9223 B-QT	SM	Water	120 mL		30 hr
Total Coliform (Membrane Filter)	9222B	SM	Water	120 mL		30 hr
Total Coliform (10 tube MTF)	9221B-10	SM	Water	120 mL		30 hr
Total Coliform (Presence-Absence Broth)	9221D	SM	Water	120 mL		30 hr
Fecal Coliform (MPN)	9221E	SM	Water	120 mL		30 hr
Heterotrophic plate count, drinking water	9215 B	SM	Drinking water	120 mL		8 hr
Aeromonas species	1605	EPA	Drinking Water	120 mL	Ship < 10°C	30 hr

1. Obtain sample collection bottles and submission forms from the Idaho Bureau of laboratories
2. Read the directions on the back of the submission form.
3. Call the laboratory if you have any questions.
4. Fill in the gray section of the submission form completely and legibly in ink.
5. Fill in the label on the sample collection bottle using a water proof pen. This maintains the integrity of the sample should the sample and the submission form be separated.
6. Collect the sample following the directions.
7. Return the sample to the Idaho Bureau of Laboratories within 30 hours of the time the sample was collected.

SOURCE WATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Water	120 mL	None	8 hr
Total Coliform (MPN)	9221	SM	Water	120 mL	None	8 hr
Fecal coliform	9221E	SM	Water	120 mL	None	8 hr
Heterotrophic plate count, s	9215 B	SM	Water	120 mL	None	8 hr

1. Follow the directions as listed under drinking water except testing of sample must be done within 8 hours of sample collection.

AMBIENT/RECREATIONAL/ WASTEWATER

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform by Quanti-tray (Modified MPN)	9223B-PA	SM	Recreational & ambient water	200 mL	None	8 hr
<i>E. coli</i> by Quanti-tray (Modified MPN)	9223 B-QT	SM	Recreational & ambient waters	200 mL	None	8 hr
<i>E. Coli</i> O157:H7 isolation	EO157	EPA	Water	200 mL (water)	None	8 hr
<i>Enterococcus</i> by Quanti-tray (Modified MPN)	9230 D	SM	Water	200 mL	None	8 hr
Heterotrophic plate count, environmental	9215 B	SM	Environmental water	120 mL	None	8 hr
Legionella sp./environmental	9260 J	SM	Contact lab	Contact lab	Contact lab	Contact lab
<i>Listeria monocytogenes</i>	ELIS	BAM	Water	200 mL	Contact lab	8 hr
<i>Pseudomonas aeruginosa</i>	9213	SM	Water	200 mL	None	8 hr
Total Coliform (MPN tube)	9221	SM	Wastewater	200 mL	None	6 hr
Fecal Coliform/ <i>E.coli</i> (MPN)	9221	SM	Wastewater	200	None	6 hr
Yeast or Mold in water	EYM	SM	Contact lab	Contact lab	Contact lab	Contact lab
Identification of Environmental mold	API	6:9610	Contact lab	Contact lab	Contact lab	Contact lab

SLUDGE

Sample Matrix	Tests or Methods	Refs.	Sample Required	Volume Required Minimum	Special Collection Procedures	Holding Time
Total Coliform (MPN)	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Fecal Coliform / <i>E. coli</i>	9221	SM	Sludge	200 mL	Contact Lab	Contact Lab
Salmonella	9260	SM	Sludge	200 mL	Contact Lab	Contact Lab

1. Obtain sample collection bottles from the Idaho Bureau of Laboratories.
2. Fill in the grey area of the submission form completely and legibly in ink. Include special testing requests, estimated counts, or any circumstances which may effect the level of contamination in the "Special Instructions" box.
3. See Standard Methods for specific directions.
4. Place samples on ice in such a manner the samples remain cold but not frozen.
5. Samples must reach the laboratory as soon as possible. See above chart.

If you have questions please call the Idaho Bureau of Laboratories, 208-334-2235.

Explanation of References

(1) 40 CFR Part 141. 1989. Safe Drinking Water Act. National Primary Drinking Water Regulations; Total Coliforms (Including Fecal Coliforms and *E. coli*).

(2) 40 CFR Part 141. 1992. Safe Drinking Water Act. National Primary Drinking Water Regulations, Analytical Techniques Coliform Final Rule.

(3) 40 CFR Part 503 Subpart D. 1992. Standards for the use of disposal of sewage sludge rule.

(4) BioMérieux. 1996. Manufacturers Instructions API 20 E System 07564B-09/96. API.

(5) Clesceri, L.S, A.E. Greenberg, and A.E. Eaton, eds. 1998. Standard Methods for the Examination of Water and Wastewater. 20th ed. American Public Health Association. Washington DC.

(6) FDA. 2001. Food and Drug Administration Bacteriological Analytical Manual, 8th ed., Revision A. AOAC International, Gaithersburg, MD.

Chemistry Sample Preservation and Holding Times

Bacterial Tests

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Coliform, Fecal and Total	W	P,G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃ ^c	6-24 hours ^d
Fecal Streptococci	W	P,G	Cool, 4°C, 0.008% Na ₂ S ₂ O ₃ ^c	6-24 hours ^d

Inorganic Tests

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Acidity	W	P,G	Cool, 4°C	14 days
Alkalinity	W	P,G	Cool, 4°C	14 days
Ammonia	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Biochemical Oxygen Demand (BOD)	W	P,G	Cool, 4°C	48 hours
Bromide	W	P,G	None Required	28 days
Chemical Oxygen Demand (COD)	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Chloride	W	P,G	None Required	28 days
Chlorine, Total Residual	W	P,G	None Required	24 hours
Color	W	P,G	Cool, 4°C	48 hours
Cyanide, Total and Amenable to Chlorination	W	P,G	Cool, 4°C, NaOH to pH>12, Plus 0.6g Ascorbic Acid	14 days
Cyanide, Weak Acid Dissociable	W	P,G	Cool, 4°C, NaOH to pH >12	14 days
Fluoride	W	P,G	None Required	28 days
Hardness	W	P,G	HNO ₃ to pH<2	6 months
Hydrogen Ion (pH)	W	P,G	None Required	24 hours
Kjeldahl and Organic Nitrogen	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Nitrate	W	P,G	Cool, 4°C	48 hours
Nitrate-Nitrite	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Nitrite	W	P,G	Cool, 4°C	48 hours
Orthophosphate	W	P,G	Filter Immediately, Cool, 4°C	48 hours
Oxygen, Dissolved (Probe)	W	G, Bottle and Top	None Required	Analyze immediately
Oxygen, Dissolved (Winkler)	W	G, Bottle and Top	Fix on Site and Store in Dark	8 hours
Phenolics, Total	W	G Only	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Phosphorus, Elemental	W	G Only	Cool, 4°C	48 hours
Phosphorus, Total	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Residue, Total	W	P,G	Cool, 4°C	7 days
Residue, Filterable (TDS)	W	P,G	Cool, 4°C	7 days
Residue, Nonfilterable (TSS)	W	P,G	Cool, 4°C	7 days
Residue, Settleable	W	P,G	Cool, 4°C	48 hours
Residue, Volatile	W	P,G	Cool, 4°C	7 days
Silica	W	P Only	Cool, 4°C	28 days
Specific Conductance	W	P,G	Cool, 4°C	28 days
Sulfate	W	P,G	Cool, 4°C	28 days
Sulfide	W	P,G	Cool, 4°C, Add Zinc Acetate plus Sodium Hydroxide to pH>9	7 days
Sulfite	W	P,G	None Required	24 hours
Surfactants (MBAS)	W	P,G	Cool, 4°C	48 hours
Tannin and Lignin	W	P,G	Cool, 4°C	28 days
Temperature	W	P,G	None Required	Analyze immediately
Turbidity	W	P,G	Cool, 4°C	48 hours

Metals

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Chromium VI	W	P,G	Cool, 4°C	24 hours
Mercury	W	P,G	HNO ₃ to pH<2	28 days
	S	P,G	Cool, 4°C	28 days
Metals, except Chromium VI and Mercury	W	P,G	HNO ₃ to pH<2	6 months
	S	G, Teflon-Lined Cap	Cool, 4°C	6 months

Organic Tests

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Oil and Grease	W	G, Teflon-Lined Cap	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Organic Carbon, Total (TOC)	W	P,G	Cool, 4°C, H ₂ SO ₄ to pH<2	28 days
Organic Halogens, Total (TOX)	W	G, Teflon-Lined Cap	Cool, 4°C, H ₂ SO ₄ to pH<2 No headspace	28 days
Organic Halogens, Adsorbable (AOX)	W	G, Teflon-Lined Cap	Cool, 4°C, HNO ₃ to pH<2	5 months
Petroleum Hydrocarbons, Total Recoverable	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H ₂ SO ₄ to pH<2	8 days
Petroleum Hydrocarbons, Total	W	G, Teflon-Lined Cap	Cool, 4°C, HCl or H ₂ SO ₄ to pH<2	7 days until extraction; 40 days after extraction
	S	G, Teflon-Lined Cap	Cool, 4°C	14 days until extraction; 40 days after extraction
Petroleum Hydrocarbons, Volatile (Gasoline-Range Organics)	W	G, Teflon-Lined Septum Cap	Cool, 4°C, HCl to pH<2 No Headspace	14 days
	S	G, Teflon-Lined Cap	Cool, 4°C Minimize Headspace	14 days

Volatile Organics

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Purgeable Halocarbons	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% Na ₂ S ₂ O ₃ , HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined Cap or 5035	Cool, 4°C, Minimize Headspace	14 days
Purgeable Aromatic Hydrocarbons (including BTEX and MTBE)	W	G, Teflon-Lined Septum Cap	No Residual Chlorine Present: HCl to pH<2, Cool, 4°C, No Headspace Residual Chlorine Present: 10% Na ₂ S ₂ O ₃ , HCl to pH<2, Cool, 4°C, No Headspace	14 days
	S	G, Teflon-Lined CaP or 5035	Cool, 4°C, Minimize Headspace	14 days
Acrolein, Acrylonitrile, Acetonitrile	W	G, Teflon-Lined Septum Cap	Adjust pH to 4-5, Cool, 4°C, No Headspace	14 days

Semivolatile Organics

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Petroleum Hydrocarbons, Extractable (Diesel-Range Organics)	W,S	G, Teflon-Lined Cap	Cool, 4°C	7 days until extraction; ^e 40 days after extraction
EDB and DBCP	W,S	G, Teflon-Lined Cap	Cool, 4°C, 3 mg Na ₂ S ₂ O ₃ , No Headspace	14 days
Alcohols and Glycols	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Phenols	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Phthalate Esters	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Nitrosamines	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Organochlorine Pesticides and PCBs	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Nitroaromatics and Cyclic Ketones	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Polynuclear Aromatic Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C; Store in dark ^f	7 days until extraction; ^e 40 days after extraction
Haloethers	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Hydrocarbons	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Organophosphorus Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Nitrogen- and Phosphorus-Containing Pesticides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Herbicides	W,S	G, Teflon-Lined Cap	Cool, 4°C ^f	7 days until extraction; ^e 40 days after extraction
Chlorinated Phenolics	W	G, Teflon-Lined Cap	H ₂ SO ₄ to pH<2, Cool, 4°C ^f	30 days until extraction 30 days after extraction
Resin and Fatty Acids	W	G, Teflon-Lined Cap	NaOH to pH >10, Cool, 4°C ^f	30 days until extraction 30 days after extraction
Diquat and Paraquat	W	P (250 ml Polypropylene)	Cool, 4°C ^f	7 days until extraction 14 days after extraction
(Safe Drinking Water Act)				30 days after extraction

Toxicity Characteristic Leaching Procedure (TCLP)

DETERMINATION	MATRIX ^a	CONTAINER ^b	PRESERVATION	MAXIMUM HOLDING TIME
Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO ₃ to pH<2	28 days until extraction 28 days after extraction
Metals, except Mercury	HW	P,G	Sample: Cool, 4°C TCLP extract: HNO ₃ to pH<2	180 days until extraction 180 days after extraction
Volatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C Minimize Headspace TCLP extract: Cool, 4°C, HCl to pH<2, No Headspace	14 days until extraction 14 days after extraction
Semivolatile Organics	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C, Store in Dark ^f TCLP extract: Cool, 4°C, Store in Dark ^f	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Organochlorine Pesticides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction
Chlorinated Herbicides	HW	G, Teflon-Lined Cap	Sample: Cool, 4°C TCLP extract: Cool, 4°C	14 days until TCLP extn; 7 days until extraction 40 days after extraction

^a W = Water, S = Soil or Sediment; HW = Hazardous Waste

^b P = Polyethylene (Cubitainer Recommended); G = Glass (one Liter Amber Boston Round Recommended)

^c For chlorinated water samples

^d The recommended maximum holding time is variable, and is dependent upon the geographical proximity of sample source to the laboratory

^e Fourteen days until extraction for soil, sediment, and sludge samples.

^f If the water sample contains residual chlorine, 10% sodium thiosulfate is used to dechlorinate.